Panasonic

Operating Instructions
Plasma Television

Model No. **TH-58PZ700A**

VIERA

DVB® AVCHD™ DOLBY DIGITAL

VIERA Link SD HC™ SRS TruSurround XT HDMI™ HIGH-DEFINITION MULTIMEDIA INTERFACE

English

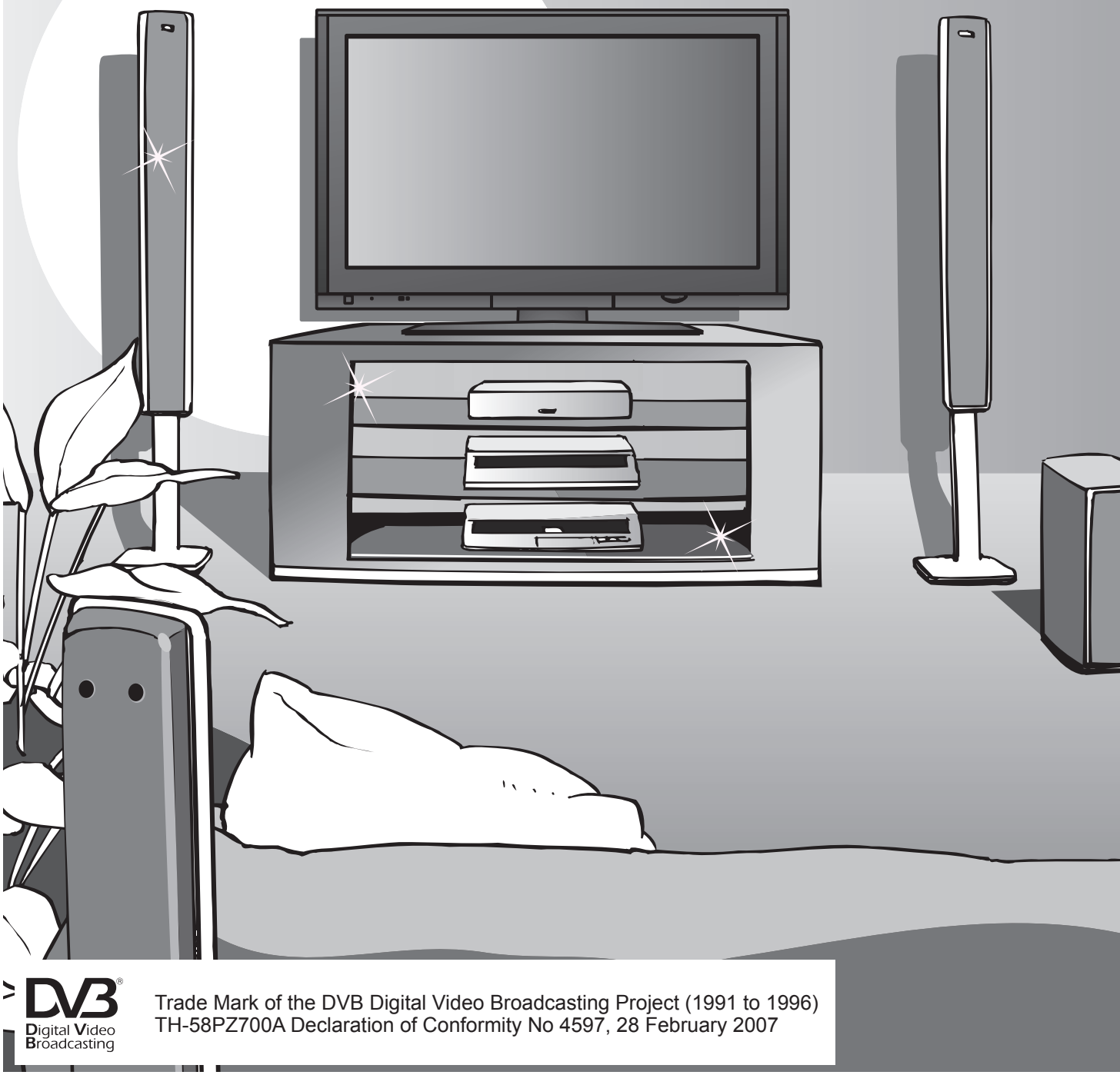
Please read these instructions before operating your set and retain them for future reference.
The images shown in this manual are for illustrative purposes only.

TQBC2231

Turn your own living room into a movie theatre!

Experience an amazing level of multi-

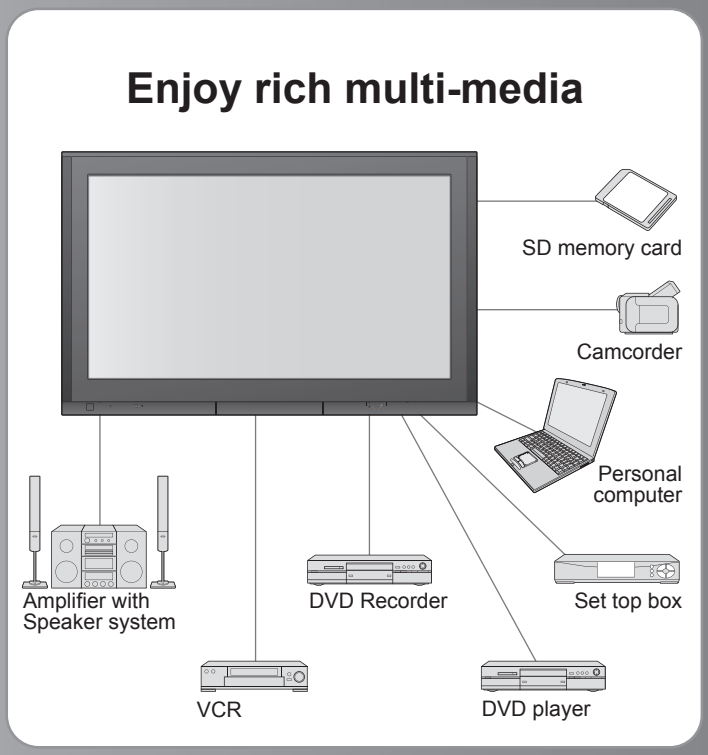
- **Full HD Plasma Panel**
- **Receive digital terrestrial services using an integrated (Digital Video Broadcasting) tuner**
- **Sharp pictures with HDMI terminal**
- **Create home theatre and DVD recorder link-ups with "VIERA Link" without complicated settings!**

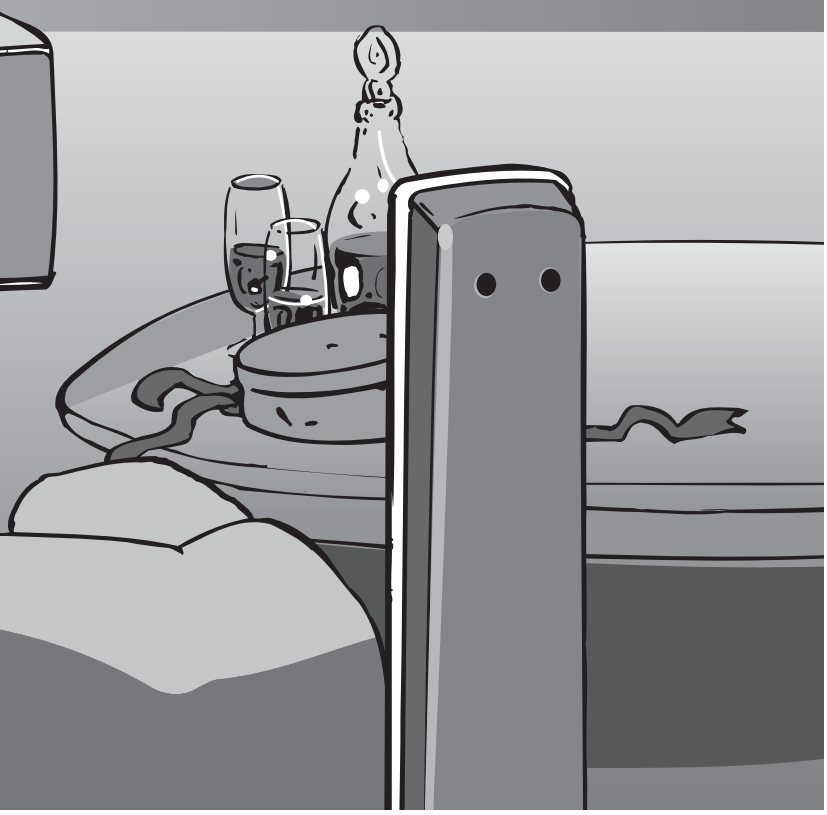


DVB Digital Video Broadcasting

Trade Mark of the DVB Digital Video Broadcasting Project (1991 to 1996)
TH-58PZ700A Declaration of Conformity No 4597, 28 February 2007

media excitement





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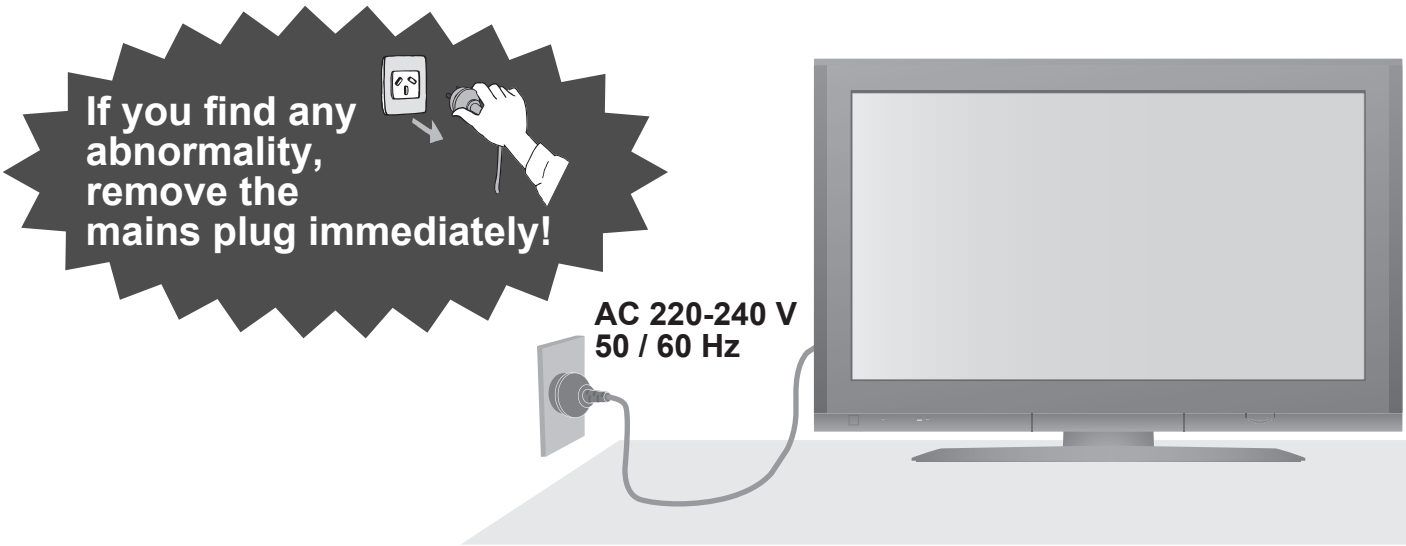
Safety Precautions

Warning

Handling the mains plug and lead

- Insert the mains plug fully into the socket outlet. (If the mains plug is loose, it could generate heat and cause fire.)
- Ensure that the mains plug is easily accessible.
- Ensure the grounding pin on the mains plug is securely connected to prevent electrical shock.
- Do not touch the mains plug with a wet hand. (This may cause electrical shock.)
- Do not use any mains lead other than that provided with this TV. (This may cause fire or electrical shock.)
- Do not damage the mains lead. (A damaged lead may cause fire or electrical shock.)
  - Do not move the TV with the lead plugged in the socket outlet.
  - Do not place a heavy object on the lead or place the lead near a high-temperature object.
  - Do not twist the lead, bend it excessively, or stretch it.
  - Do not pull on the lead. Hold onto the mains plug body when disconnecting lead.
  - Do not use a damaged mains plug or socket outlet.



Do not remove covers NEVER modify the TV yourself

(High-voltage components may cause serious electrical shock.)

- Have the TV checked, adjusted, or repaired at your local Panasonic dealer.

Keep liquids away from the TV

- To prevent damage which may result in fire or shock hazard, do not expose this appliance to dripping or splashing.
- Do not place containers with water (flower vase, cups, cosmetics, etc.) above the TV. (including on shelves above, etc.)

Do not expose to direct sunlight and other sources of heat

- Avoid exposing the TV to direct sunlight and other sources of heat. To prevent fire never place any type of candle or naked flame on top or near the TV.

Do not place foreign objects inside the TV

- Do not let metal or flammable objects drop into the TV through the air vents (fire or electrical shock may result).

Do not place the TV on sloped or unstable surfaces

- The TV may fall off or tip over.

Use only the dedicated stands / mounting equipment

- Using an unauthorized stand or other fixtures may make the TV shaky, risking injury. Be sure to ask your local Panasonic dealer to perform setup.
- Use optional stands / mounts (p. 6).

Do not allow children to handle SD card

- As with a small object, SD card can be swallowed by young children. Please remove SD card immediately after use.

Notes

Caution

■When cleaning the TV, remove the mains plug

(Cleaning an energized TV may cause electrical shock.)

■When TV will not be used for a long time, remove the mains plug

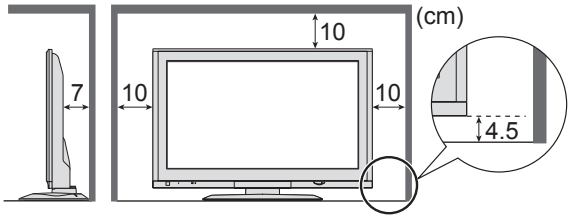
- This TV will still consume some power even in the Off mode, as long as the mains plug is still connected to a live socket outlet.

■Transport only in upright position

- Transporting the TV with its display panel facing upright or downward may cause damage to the internal circuitry.

■Allow sufficient space around the TV for radiated heat

Minimum distance



■Do not block the rear air vents

- Blocked ventilation by curtains, etc. may cause overheating, fire or electrical shock.

Do not display a still picture for a long time

This causes the image to remain on the plasma screen (“image retention”).
This is not considered a malfunction and is not covered by the warranty.

Typical still images

- Channel number and other logos
- Image displayed in 4:3 mode
- Video game
- Computer image

To prevent image retention, contrast is lowered automatically after a few minutes if no signals are sent or no operations are performed. (p. 40)

■Auto power standby function

- If no signal is received and no operation is performed in Analogue TV mode for 30 minutes, the TV will automatically go to standby mode.

■Keep the TV away from these equipment

- Electronic equipment
  In particular, do not place video equipment near the TV (electromagnetic interference may distort images / sound).
- Equipment with an infrared sensor
  This TV also emits infrared rays (this may affect operation of other equipment).

Maintenance

First, remove the mains plug from the socket outlet.

Display panel

Regular care: Gently wipe the surface clean of dirt by using a soft cloth.
Major contamination: Wipe the surface clean using a soft cloth dampened with clean water or diluted neutral detergent by 100 times of water. Then, using a soft dry cloth, evenly wipe the surface clean until it is dry.

Caution

- The surface of the display panel has been specially treated and may be easily damaged.
  Do not tap or scratch the surface with your fingernail or other hard object.
- Use care not to subject the surface to bug repellent, solvent, thinner, or other volatile substances (this may degrade surface quality).

Cabinet

Regular care: Wipe the surface clean using a soft dry cloth.
Major contamination: Dampen a soft cloth with clean water or water containing a small amount of neutral detergent. Then, wring the cloth and wipe the surface clean with it. Finally, wipe the surface clean with a dry cloth.

Caution

- Use care not to subject the TV's surfaces to detergent.
  (A liquid inside the TV could lead to product failure.)
- Use care not to subject surfaces to bug repellent, solvent, thinner, or other volatile substances (this may deteriorate the surface by peeling the paint).
- Do not allow the cabinet to make contact with a rubber or PVC substance for a long time.

Mains plug

Wipe the mains plug with a dry cloth at regular intervals. (Moisture and dust may lead to fire or electrical shock.)

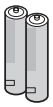
Accessories / Options

Standard accessories

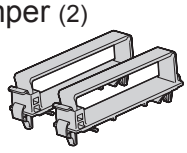
Check that you have the accessories and items shown ☑

☐Remote Control Transmitter
● N2QAYB000122

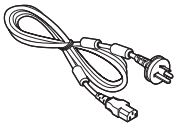
☐Batteries for the Remote Control Transmitter (2)
● R6 (AA)



☐Clamper (2)



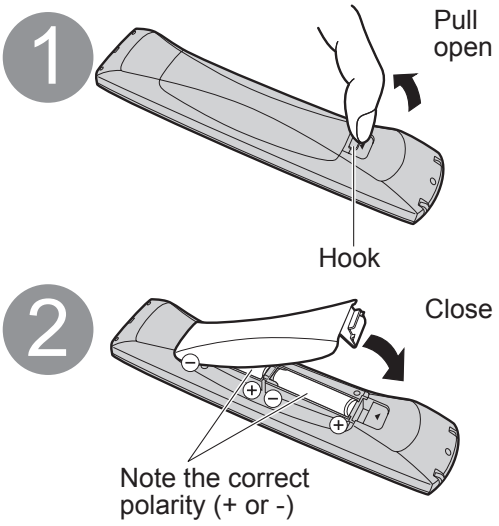
☐Mains Lead



☐Operating Instructions

☐Guarantee

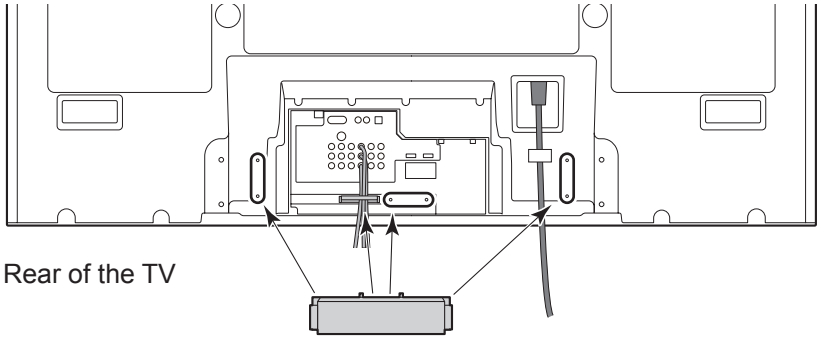
Installing remote's batteries

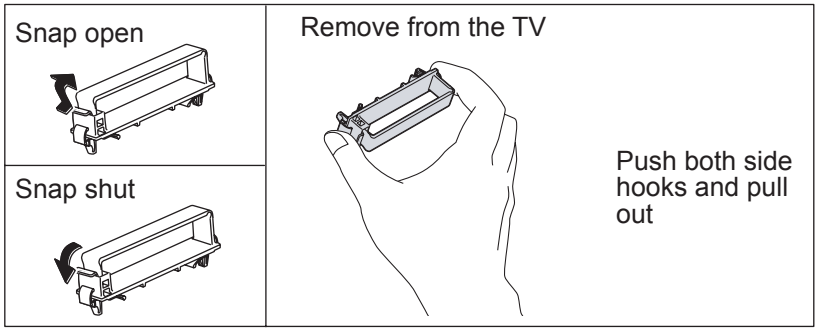


Caution

- Incorrect installation may cause battery leakage and corrosion, resulting in damage to the remote control.
- Do not mix old and new batteries.
- Do not mix different battery types (such as alkaline and manganese batteries).
- Do not use rechargeable (Ni-Cd) batteries.
- Do not burn or breakup batteries.

Using the clamper

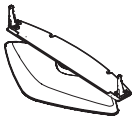




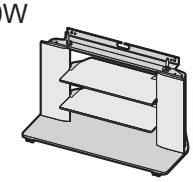
- Do not bundle the RF cable and mains lead together (could cause distorted image).
- Fix cables with clampers as necessary.
- When using the optional accessory, follow the option's assembly manual to fix cables.

Optional accessories

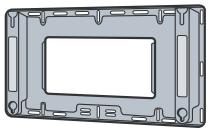
Pedestal
● TY-ST58D2-WK



Plasma TV stand
● TY-S58PX700W



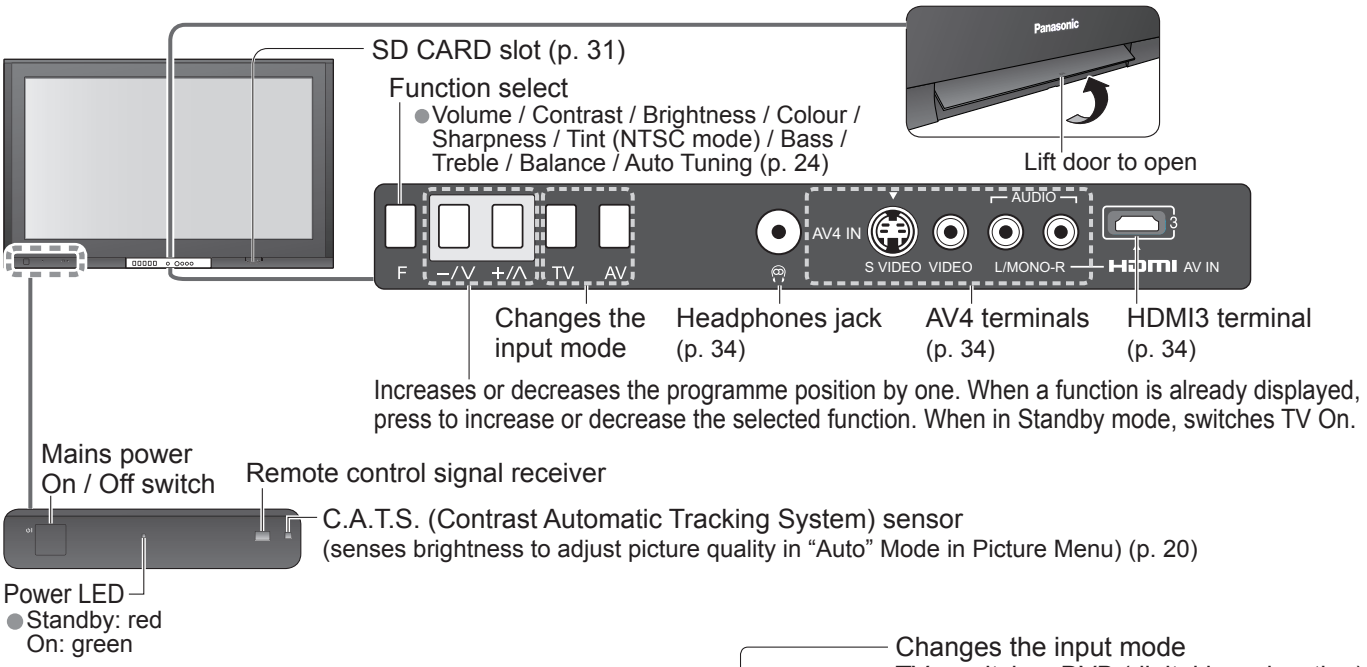
Wall-hanging bracket (vertical)
● TY-WK42PV3W

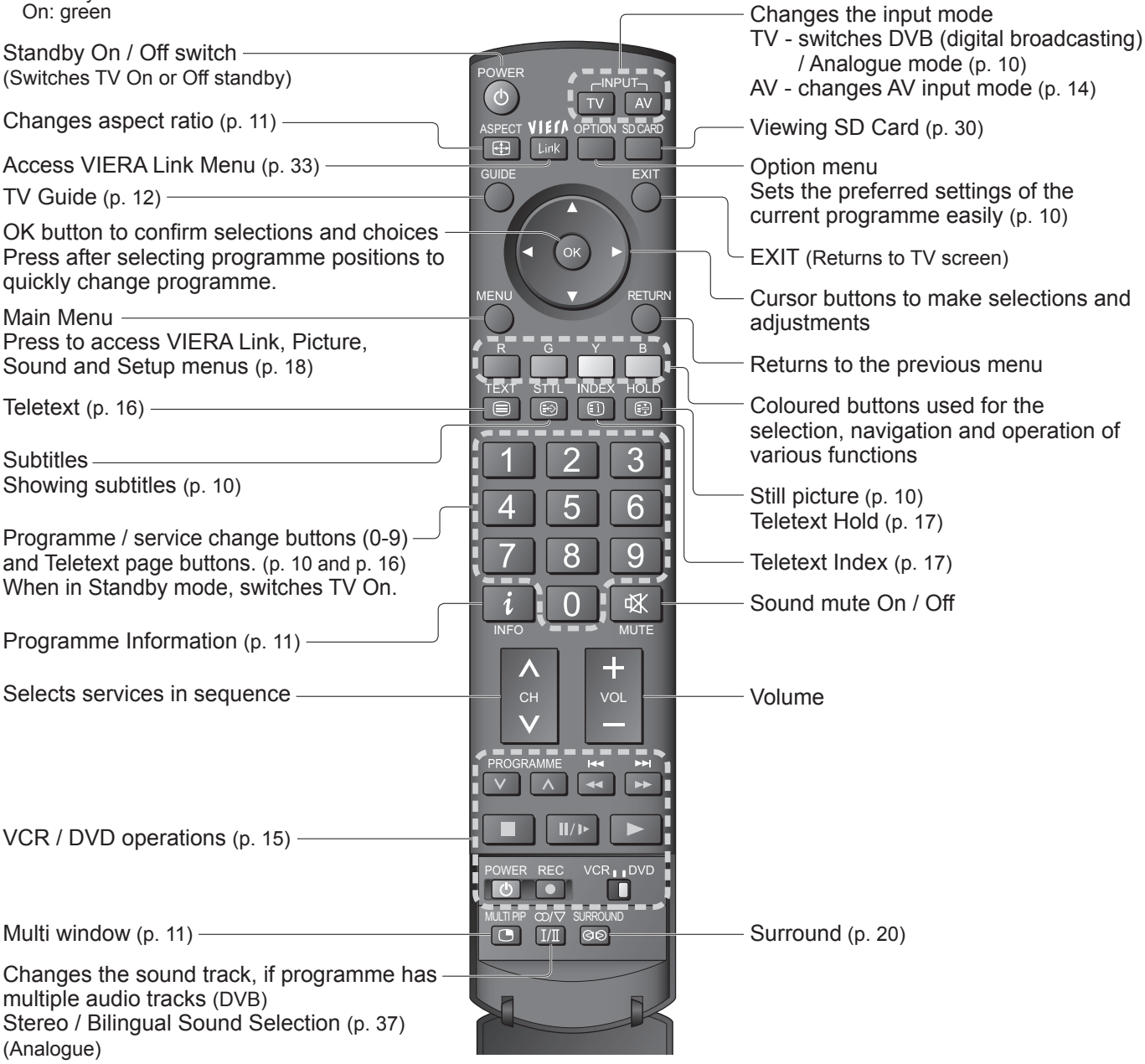


Caution

- In order to maintain the unit's performance and safety, be absolutely sure to ask your dealer or a licenced contractor to secure the wall-hanging brackets.
- Carefully read the instructions accompanying the plasma TV stand or pedestal, and be absolutely sure to take steps to prevent the TV from tipping over.
- Handle the TV carefully during installation since subjecting it to impact or other forces may cause product damage.

Identifying Controls



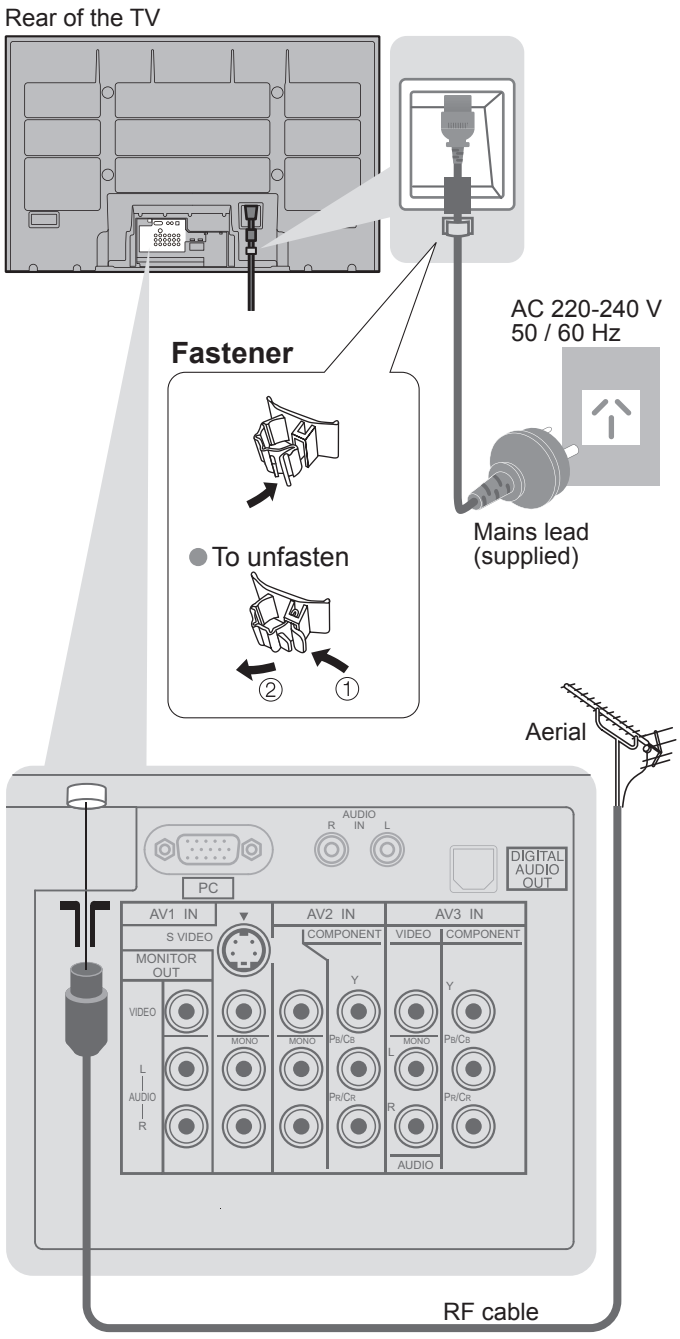


Basic Connection

External equipment and cables shown are not supplied with this TV.
Please ensure that the unit is disconnected from the mains socket before attaching or disconnecting any leads.
When disconnecting the mains lead, be absolutely sure to disconnect the mains plug at the socket outlet first.

Example 1 Connecting aerial

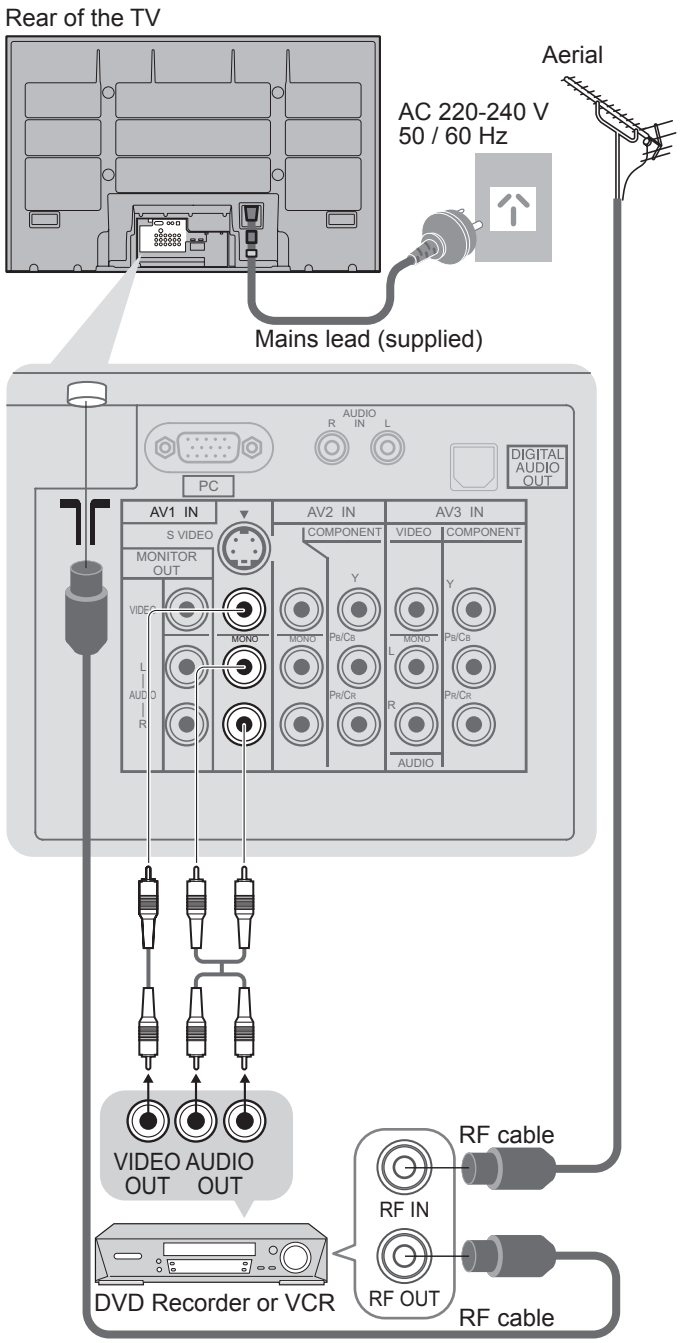
TV only



Example 2 Connecting DVD Recorder / VCR

TV, DVD Recorder or VCR

● If your recorder is not available for DVB ➡ p. 41

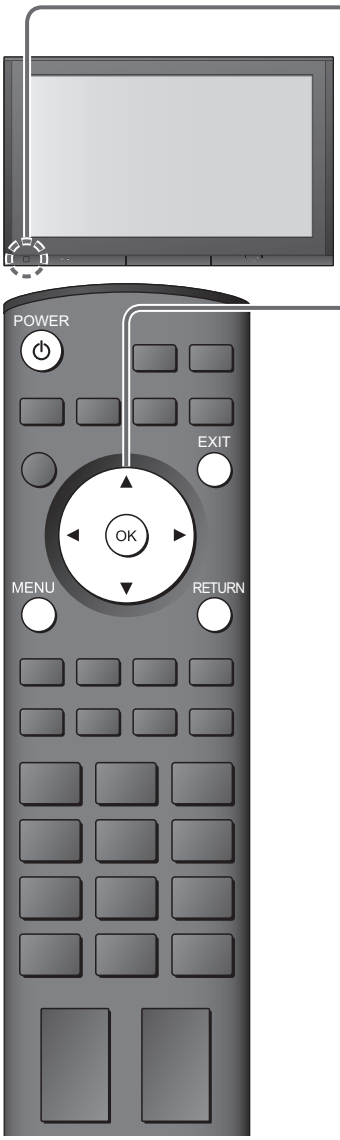


Note

- Do not put the RF cable close to the mains lead to avoid noise.
- Do not place the RF cable under the TV.
- To obtain optimum quality picture and sound, an Aerial, the correct cable (75 Ω coaxial) and the correct terminating plug are required.
- If a communal Aerial system is used, you may require the correct connection cable and plug between the wall Aerial socket and the TV.
- Your local Television Service Centre or dealer may be able to assist you in obtaining the correct Aerial system for your particular area and the accessories required.
- Any matters regarding Aerial installation, upgrading of existing systems or accessories required, and the costs incurred, are the responsibility of you, the Customer.

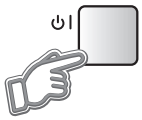
Auto Tuning

Search and store TV channels automatically.
These steps are not necessary if the setup has been completed by your local dealer.



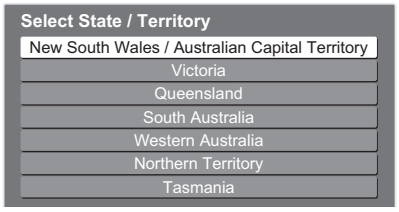
1 Plug the TV into mains socket and switch On

(Takes a few seconds to be displayed)



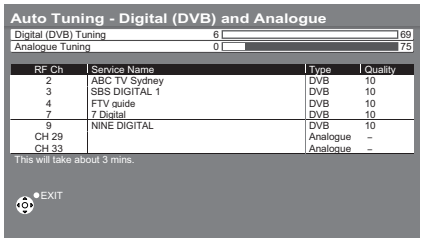
- You can now use the remote control to turn On the TV or turn the TV to standby mode. (Power LED: On)

2 Select your state



select

3 Start Auto Tuning



- Auto Tuning will start to search for TV services and store them in the numbered order as specified by the broadcasters.

Auto Tuning is now complete and your TV is ready for viewing.

- To edit channels
  ➡ Editing and Setting Channels (p. 24)
- If tuning has failed
  ➡ “Auto Tuning” (p. 24).
- If you turned the TV Off during Standby mode last time, the TV will be in Standby mode when you turn the TV On with Mains power On / Off switch.

Using the On Screen Displays

Many features available on this TV can be accessed via the On Screen Display menu.

■ How to use remote control

MENU
Open the main menu

Move the cursor / select the menu

Move the cursor / adjust levels / select from a range of options

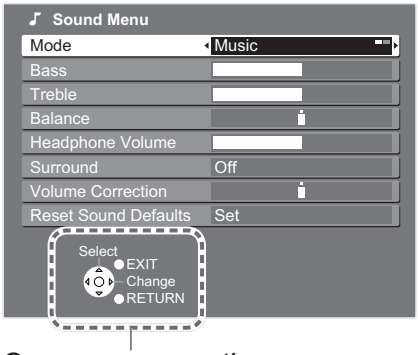
OK
Access the menu / store settings after adjustments have been made or options have been set

RETURN
Return to the previous menu

EXIT
Exit the menu system and return to the normal viewing screen

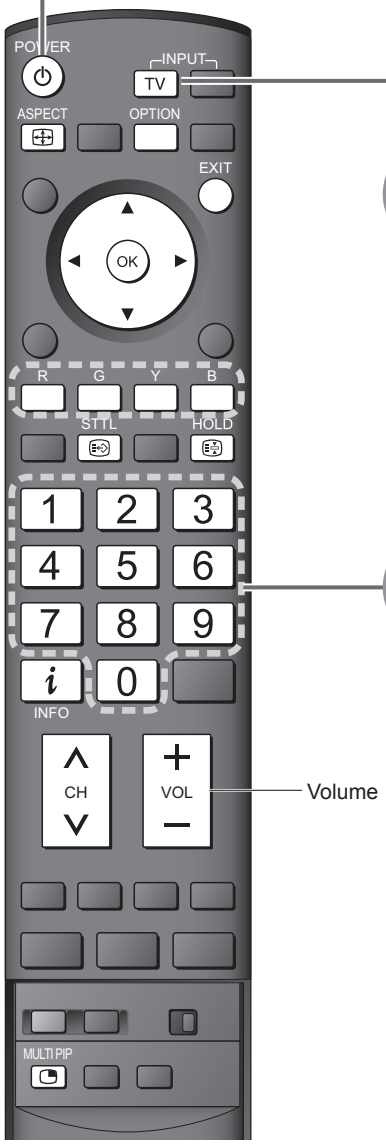
■ ON SCREEN HELP Instructions box

(example: Sound Menu)



On-screen operation guide will help you.

Watching TV

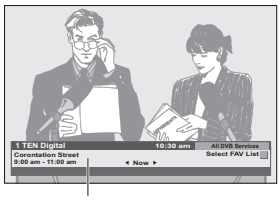


1 Turn power on

POWER

● Mains power On / Off switch should be On.

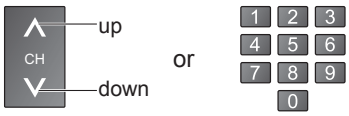
2 Select DVB (Digital Video Broadcasting) or Analogue



Information banner

● You can also select the mode using the TV button on the front panel of the TV.

3 Select a service



● To select the two or three-digit programme number, e.g. 39
➡ 3 ➡ 9 (in a short time)

■ Select a service using Information banner

■ Select a service using TV Guide

➡ "Using TV Guide" (p. 12)

Note

● When the TV is switched to standby, there will be a clicking sound after a short delay. This is normal.

■ Other useful functions (Operate after 3)

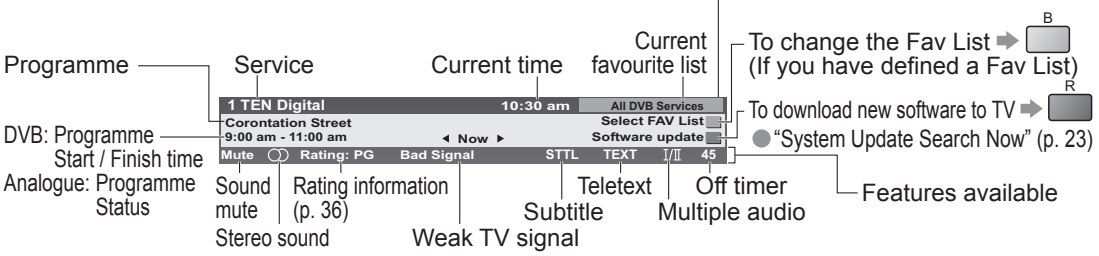
Hold	**Freeze / unfreeze picture** HOLD
Display subtitles	**Display / hide subtitles** (if available) STTL ● This is the same as turning the teletext on and selecting P801. ● Channel changing is not possible when this function is active.
Display the current programme status	**Check or change the current programme status instantly** OPTION **Volume Correction** ➡ Adjusts volume of individual channel or input mode **Note** ● Also possible to change the settings in Menu list (p. 20).

■ Other useful functions (Operate after ③)

Display information banner

Display programme information

INFO



- ● Information of another channel ➡
- ● Information on next programme ➡ (DVB)
- ● To watch the programme listed in the banner ➡ OK
- ● Information banner operation ➡ INFO

1st press Display banner ➡ 2nd press Banner + programme synopsis (DVB) ➡ 3rd press Exit

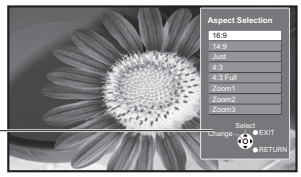
- ● To set display timeout ➡ "Banner Display Timeout" (p. 21)
- ● To hide ➡ EXIT
- ● Appears also when changing service.

Change aspect ratio

Change the aspect ratio (p. 36)

ASPECT

Enjoy viewing the picture at its optimum size and aspect.



Aspect Selection list

- ● To change the mode
  Display Aspect Selection list ASPECT ➡ During the list is displayed, select the mode ➡ Store OK
- ● To change the mode using the ASPECT button only
  ➡ ASPECT (Press repeatedly until you reach the desired mode)

Note

- ● In DVB mode, aspect ratio is fixed at 16:9.

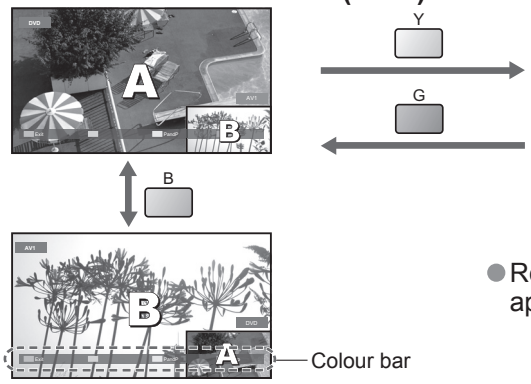
Watch TV, DVD, etc. in multi window

View in multi window (p. 38)

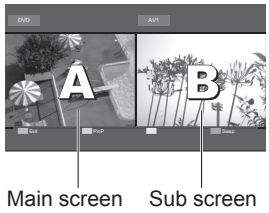
MULTI PIP

Enjoy viewing two images at once, such as a TV programme and a DVD.

Picture-in-Picture mode (PinP)



Picture-and-Picture mode (PandP)



- ● Remote control operations apply to the main screen.

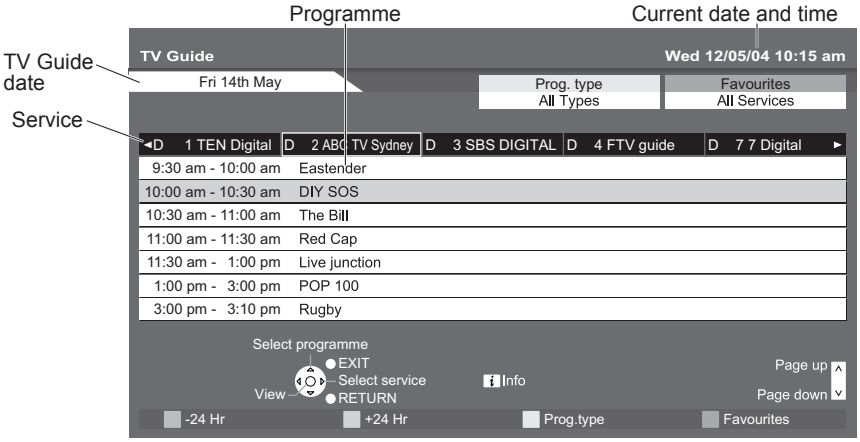
Operations in multi window

- ● To exit multi window (return to the single-screen view with main screen) ➡ MULTI PIP
- ● To change the layout, images, first show the colour bar ➡ INFO
  - To change the layout ➡ G Y
  - To swap ➡ B
  - To exit multi window ➡ R
  - To change the input mode or position of sub screen
    ➡ Swap sub screen for main screen B ➡ Change the input mode or position by the remote control (p. 10 or p. 14) ➡ Swap again B

Using TV Guide

TV Guide—Electronic Programme Guide (EPG) provides an on-screen listing of programmes currently broadcast and future broadcasts over the next seven days (depending on the broadcaster).
Analogue broadcasts will be listed after DVB broadcasts. “D” means DVB channel and “A” means Analogue channel.

View TV Guide



(Displays by time)

■ **To previous day** (DVB mode)

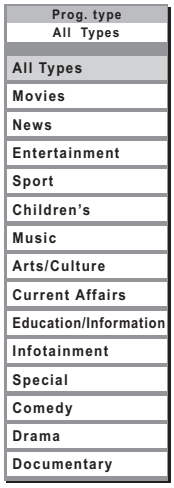
R

■ **To next day** (DVB mode)

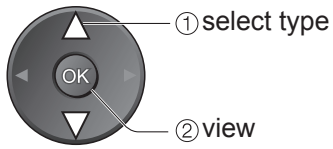
G

■ **To view a programme list of the selected type** (DVB mode)

Y

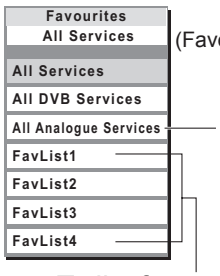


(Type list)



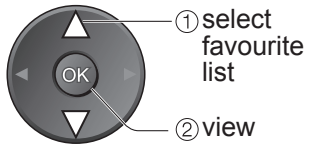
■ **To view a programme list of the selected favourites list**

B



(Favourites list)

Only analogue TV services are listed



To list favourite services (p. 23)

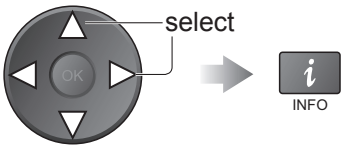
■ **To return to TV**

EXIT

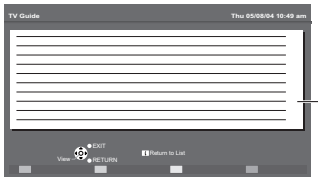
■ Other useful functions (Operate after viewing TV Guide)

View details of the programme (DVB mode)

Select the programme



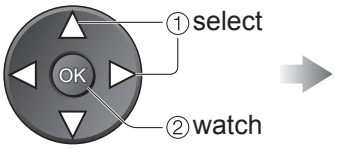
View details



■To return to the start page

Watch the programme

Select the programme now on the air



(TV screen)

Note

- When this TV is turned on for the first time, or the TV is switched off for more than a week, it may take some time before the TV Guide is completely shown.

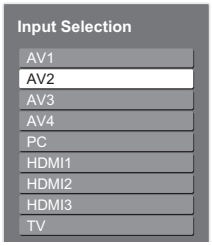
Watching Videos and DVDs

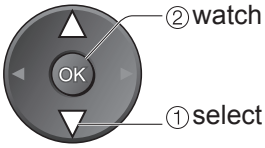
Connect the external equipment (VCRs, DVD equipment, etc.) and you can watch the input.
To connect the equipment (p. 8)
The Remote Control is capable of operating some functions of selected Panasonic external equipment.

1 Display the Input select menu

AV

2 Select the input mode connected to the equipment

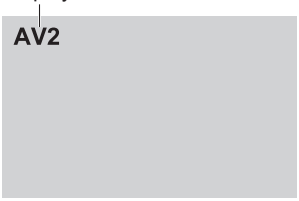




- You can also select the input using the AV button on the remote control or the front panel of the TV.
  Press the button repeatedly until the desired input is selected.
- You can label or skip each input modes ➡ “Input Labels” (p. 27)

3 View

Displays the selected mode



■ To return to TV

➡ TV

Note

- If the external equipment has an aspect adjustment function, set to “16:9”.
- For details, see the manual of the equipment or ask your local dealer.

Panasonic equipment connected to the TV can be directly operated with the remote control.

VCR DVD	**VCR / DVD switch∗** Select VCR to operate Panasonic VCR or DVD equipment Select DVD to operate Panasonic DVD equipment or Player home theatre
POWER	**Standby** Set to Standby mode / Turn on
▶	**Play** Playback videocassette / DVD
■	**Stop** Stop the operations
⏮ ◀◀	**Rewind / Skip / Search** VCR: Rewind, view the picture rapidly in reverse DVD: Skip to the previous track or title Press and hold to search backward
⏭ ▶▶	**Fast-forward / Skip / Search** VCR: Fast-forward, view the picture rapidly forward DVD: Skip to the next track or title Press and hold to search forward
⏸/▶	**Pause** Pause / Restart DVD: Press and hold to play at slow speed
PROGRAMME ∨ ∧	**Programme Up / Down** Select programme
REC ●	**Record** Start recording

∗Setting your remote control to operate Panasonic VCR, DVD, etc.

① Set the VCR / DVD switch to the appropriate position ➡ VCR DVD

② Press and hold POWER during the following operations

Enter the appropriate code for the equipment to be controlled, see table below (1 2 3 / 4 5 6 / 7 8 9 / 0) ➡ Press ■

"VCR" position

Equipment	Code
VCR	10 (default)
DVD	11

"DVD" position

Equipment	Code
DVD	70 (default)
Player home theatre	71

Note

- Confirm correct operation after the code changed.
- The codes will be reset to default values if batteries are replaced.
- "DVD" means DVD player, DVD recorders and Recorder home theatre.
- Some operations may not be possible on some equipment models.

Viewing Teletext

You can enjoy teletext broadcasting, including news, weather forecasts and subtitles, if this service is provided by the broadcasters.

What is FASTEXT mode?
In FASTEXT mode, four differently coloured subjects are situated at the bottom of the screen. To access more information about one of these subjects, press the appropriately coloured button. This facility enables fast access to information on the subjects shown.

What is TOP mode? (in case of TOP text broadcasting)
TOP is a particular improvement of the standard teletext service that results in an easier search and effective guide.

- Fast overview of the teletext information available
- Easy to use step-by-step selection of the topical subject
- Page status information at the bottom of the screen

Available page up / down ➡ R G

To select among subject blocks ➡ B

To select next subject within the subject block ➡ Y
(After the last subject, it moves to the next subject block.)

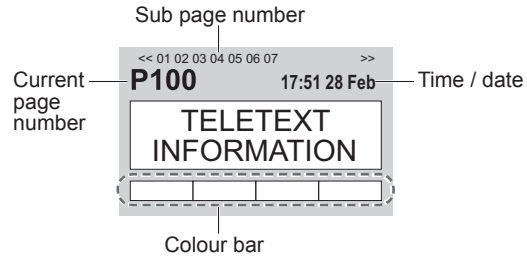
What is List mode?
In List mode, four differently coloured page numbers are situated at the bottom of the screen. Each of these numbers can be altered and stored in the TV's memory. ("Store frequently viewed pages", p. 17)

■ **To change mode** ➡ "Teletext" in Setup Menu (p. 21)

1

Switch to Teletext

TEXT ● Displays Index (content varies depending on the broadcasters)



2

Select the page

1 2 3 / 4 5 6 / 7 8 9 / 0 or up / down or R G Y B (Corresponds to the colour bar)

■ **To adjust contrast** ➡ MENU (Press twice) ➡ As the blue bar is displayed

■ **To return to TV** ➡ TEXT

■ **Using teletext conveniently**

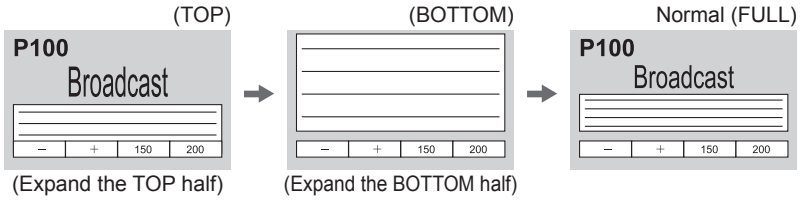
Reveal hidden data

Reveal hidden words e.g. quiz page answers

MENU ➡ R ● Re-hide ➡ R

FULL / TOP / BOTTOM

MENU ➡ G



HOLD

If you wish to hold the current page without updating

Stop or resume automatic updating

HOLD

■ **To resume** ➡ HOLD

INDEX

Return to the main index page

INDEX

Call up a favourite pages

STTL

- Call up the page stored in “blue”.
- Factory setting is “P801” (subtitle page).

View in multi window

Watch TV and Teletext in two windows at once

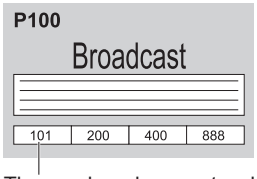
MULTI PIP

- Operations can be made only in Teletext screen.

Store frequently viewed pages

Store frequently viewed pages in the colour bar (List mode only)

As page is displayed ➡ Corresponding colour button ➡ OK press and hold



The number changes to white.

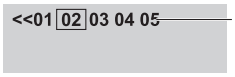
■ **To change stored pages**

➡ Colour button you want to change ➡ Enter new page number

➡ OK press and hold

View sub page

View sub page (Only when teletext is more than one page)



Appears at upper-left corner of the screen

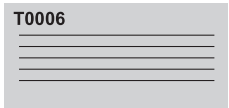
■ **To view specific sub page**

➡ MENU ➡ B ➡

➡ Enter the 4-digit number

example: P6

0 0 0 6 ➡



- Sub pages:
  The number of sub pages varies depending on the broadcasters (up to 79 pages).
  It may take some time for searching, during which time you can watch TV.

Watch TV while waiting for update

View the TV picture while searching for a teletext page

Teletext automatically updates itself when new information becomes available.

Changes to TV screen temporarily

MENU ➡ Y ➡

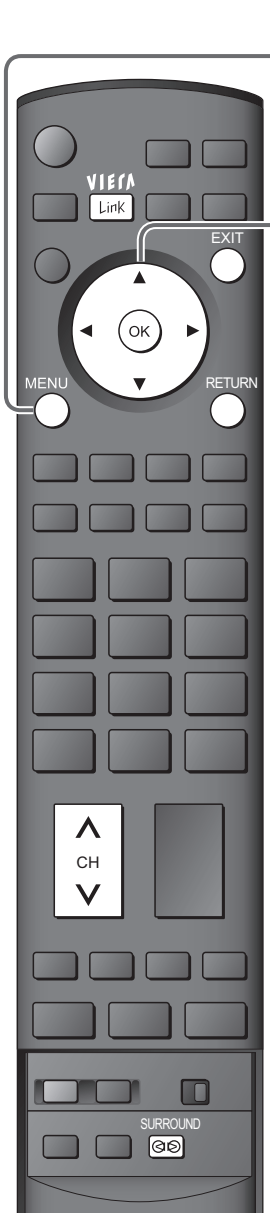
Appears when updating is completed ➡ Y ➡ View the updated page

(You cannot change the channel.)

- The news page provides a function that indicates arrival of latest news (“News Flash”).

How to Use Menu Functions

Various menus allow you to make settings for the picture, sound, and other functions.



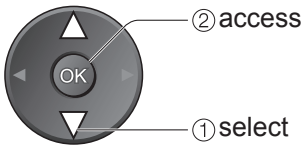
1 Display the menu

MENU

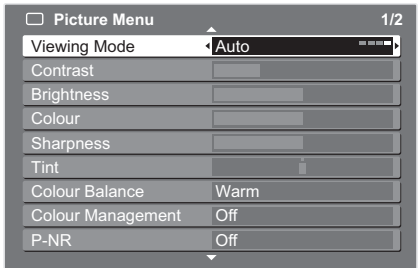
● Displays the functions that can be set (varies according to the input signal)

2 Select the menu

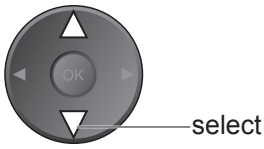
(example: Picture Menu)



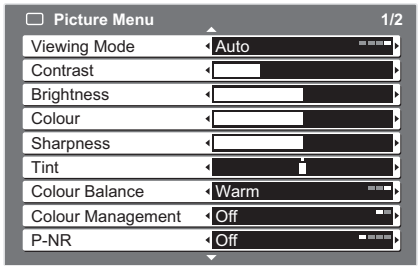
3 Select the item



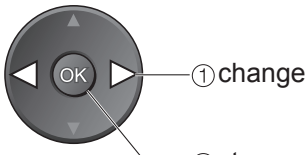
(example: Picture Menu)



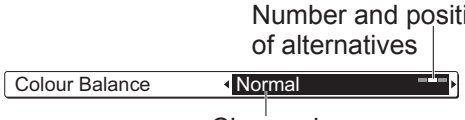
4 Adjust or select



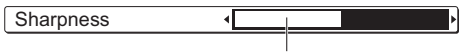
(example: Picture Menu)



■ Choose from among alternatives

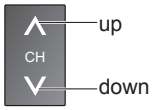


■ Adjust using the slide bar



■ Go to the next screen

■ To change menu pages



■ To return to TV at any time

EXIT

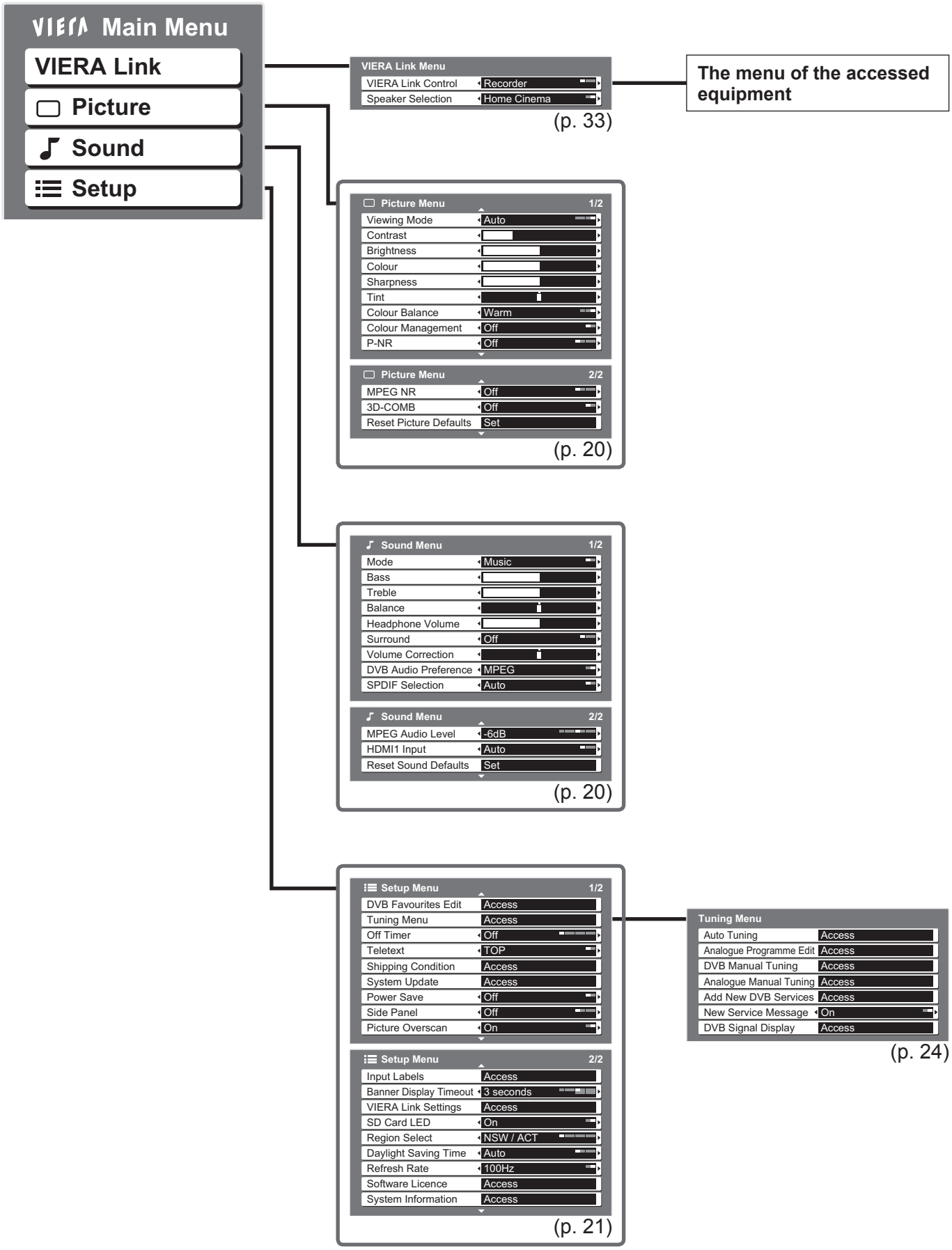
■ To return to the previous screen

RETURN

Note

● To initialize all settings
➡ “Shipping Condition” (p. 26)

■ Overview



● Only available items can be selected.

How to Use Menu Functions

■ Menu list

Menu	Item	Adjustments / Configurations (alternatives)
VIERA Link	**VIERA Link Control**	Controls the connected Panasonic equipment “Easy control only with VIERA remote control” (p. 33) “Speaker control” (p. 33) ● You can also access VIERA Link Menu directly using the VIERA Link button on the remote control.
	Speaker Selection	
Picture	**Viewing Mode**	Basic picture mode **(Dynamic / Normal / Cinema / Auto)** ● Set for each input signal
	Contrast, Brightness, Colour, Sharpness	Adjusts colour, brightness, etc. for each picture mode to suit your taste
	Tint	Adjusts tint of image ● For NTSC signal reception only
	Colour Balance	Chooses the colour balance of the entire image **(Cool / Normal / Warm)**
	Colour Management	Automatically adjusts colours to vivid ones **(Off / On)** ● Not valid on PC signal
	P-NR	Picture Noise Reduction Automatically reduces unwanted picture noise **(Off / Normal / Dynamic / Auto)** ● Not valid on HDMI, PC signal or DVB
	MPEG NR	Automatically reduces picture noise of digital signals and flicker noise in the contoured parts of a picture **(Off / Min / Mid / Max)**
	3D-COMB	Automatically makes still pictures and slow pictures look more vivid **(Off / On)** ● For PAL or NTSC signal reception only ● Not valid on S-Video, components, PC, HDMI and SD Card ● Cannot be used with DVB
	Reset Picture Defaults	Press the OK button to reset the present Picture Mode to the default settings
Sound	**Mode**	Basic sound mode **(Music / Speech)**
	Bass	Adjusts the output level of deep bass
	Treble	Adjusts the output level of high-pitch, shrill sound
	Balance	Adjusts volume level of right and left speakers
	Headphone Volume	Adjusts the volume of the headphones
	Surround	Surround sound settings **(Off / Simulated Surround / SRS TruSurround XT)** Simulated Surround: Provides a dynamic enhancer to simulate improved spatial effects SRS TruSurround XT: SRS TruSurround XT® creates a high quality surround sound effect using just two speakers from the source which can output surround encoded signals ● Switching is also possible by the Surround button on the remote control (p. 7)
	Volume Correction	Adjusts volume of individual channel or input mode
	DVB Audio Preference	Selects the initial setting for Audio tracks **(Dolby Digital / MPEG)** If programme has both Dolby Digital and MPEG audio tracks, priority is given to what you select Dolby Digital : A method of coding digital signals developed by Dolby Laboratories. Apart from stereo (2ch) audio, these signals can also be multi-channel audio. MPEG : An audio compression method that compresses audio to small size without any considerable loss of audio quality. ● DVB mode only
	SPDIF Selection	Selects the initial setting for digital audio output signal from DIGITAL AUDIO OUT terminal **(Auto / PCM)** Auto: Dolby Digital is output as Dolby Digital Bitstream. MPEG is output as PCM. PCM: Dolby Digital is output as PCM. MPEG is output as PCM. ● DVB mode and Movie View Mode (p. 31) only
	MPEG Audio Level	Normally, MPEG sound is larger than Dolby Digital one You can adjust the audio level of MPEG as the initial setting ● 0dB to -12dB in -2dB reductions ● DVB mode only
	HDMI1 / 3 Input	Select to fit the input signal **(Auto / Digital / Analogue)** (p. 29) Auto : Automatic detection of digital or analogue sound source Digital : HDMI cable connection Analogue : HDMI-DVI adapter cable connection ● HDMI input mode only ● HDMI2 terminal is for digital signal only ● No setting for HDMI2 available
	Reset Sound Defaults	Press the OK button to reset the present Sound Mode to the default settings

■ Menu list

Menu	Item		Adjustments / Configurations (alternatives)
Setup	**DVB Favourites Edit**		Creates list of favourite programmes (p. 23)
	Tuning Menu	**Auto Tuning**	Automatically sets the channels received in the area (p. 24)
		Analogue Programme Edit	Edits analogue channels (p. 25)
		DVB Manual Tuning	Sets the DVB channels manually (p. 25)
		Analogue Manual Tuning	Sets the analogue channels manually (p. 25)
		Add New DVB Services	Adds new DVB services (p. 25)
		New Service Message	Selects whether to give a notification message when a new DVB service is found (p. 25)
		DVB Signal Display	Checks the DVB signal condition (p. 25)
	Off Timer		Sets the time the TV automatically turns Off **(Off / 15 / 30 / 45 / 60 / 75 / 90 minutes)**
	Teletext		Teletext display mode **(TOP (FASTEXT) / List)** (p. 16)
	Shipping Condition		Resets all settings, for example, when moving house (p. 26)
	System Update		Downloads new software to TV (p. 23)
	Power Save		Reduces brightness of picture to economise on power consumption **(Off / On)**
	Side Panel		Increases the brightness of the side panel **(Off / Low / Mid / High)** ● The recommended setting is “High” to prevent panel “image retention”
	Picture Overscan		Selects the screen area displaying the image **(Off / On)** On : Enlarged the image to hide the edge of the image. Off : Displayed the image in the original size. ● Set to “On” if noise is generated on the edge of the screen. ● This function is available when aspect is set to 16:9. ● 1080i or 1080p signal only
	Input Labels		Labels or skips each input terminals (p. 27)
	Banner Display Timeout		Sets how long the information banner (p. 11) stays on screen ● 0 (No display) to 10 sec. in 1-sec. increments
	VIERA Link Settings	**VIERA Link**	Sets to use VIERA Link functions **(Off / On)** (p. 32)
		Power off Link	Set to “Set” to use Power off Link function **(No / Set)** (p. 33)
		Power on Link	Set to “Set” to use Power on Link function **(No / Set)** (p. 33)
	SD Card LED		Lights blue LED while SD Card is inserted **(Off / On)** (p. 31)
	Region Select		Selects the region where you live to adjust the standard time **(NSW/ACT / Victoria / Queensland / South Australia / Western Australia / Northern Territory / Tasmania)** (p. 23)
	Daylight Saving Time		Select time offset from the standard time for Summer Time **(Auto / Off / +1/2 Hr / +1 Hr)** (p. 23) ● Set to “Auto” normally
	Refresh Rate		Changes the image processing of the panel (depending on the input signal) **(50Hz / 100Hz)** ● Set to “100Hz” normally
	Software Licence		Displays the software licence information
	System Information		Displays the system information of this TV

● A different menu will be displayed while PC, DVI to HDMI adapter cable or SD Card is used. (p. 28-29 and p. 31)
● Only available items can be selected.

DVB Settings (DVB mode)

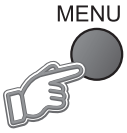
DVB Settings provide access to various advanced features.

1 If in Analogue mode

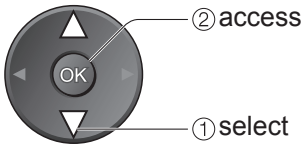
Select DVB

2 **Display the menu**

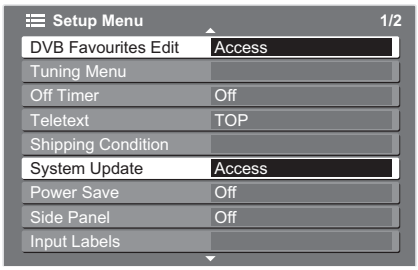
MENU

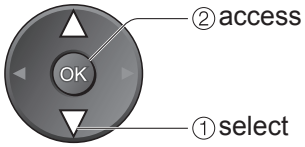


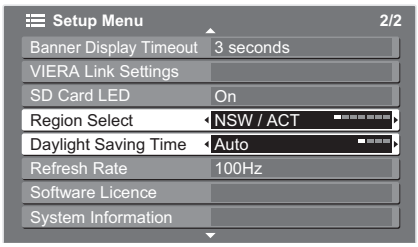
3 **Select “Setup”**



4 **Select “DVB Favourites Edit”, “System Update”, “Region Select” or “Daylight Saving Time”**







■ **To return to TV**

EXIT

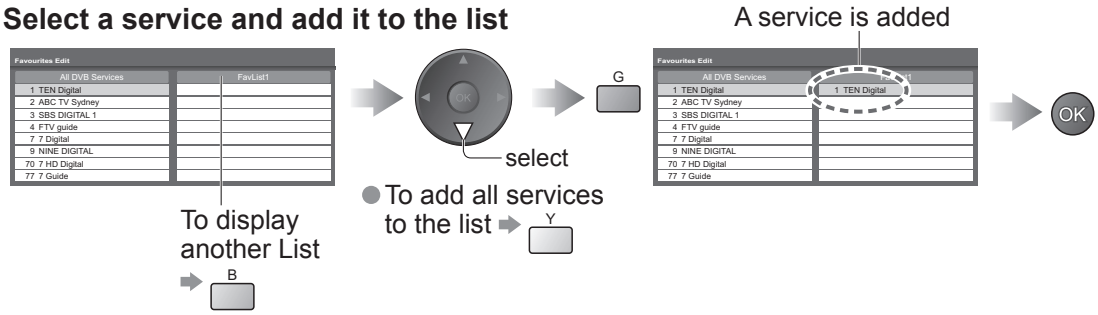
5 **Set**

List favourite services

DVB Favourites Edit

Create your favourite service List from various broadcasters (up to 4: FavList1 / FavList2 / FavList3 / FavList4).
The list is displayed in information banner (p. 11), TV Guide (p. 12) and then easily accessed.

Select a service and add it to the list



■ To edit List

Select the field of List to edit and:

- To name the List → R → Select the character → OK → RETURN
- To move the service → G → Select the new position → Confirm → G → OK
- To delete the service → Y → OK
- To delete all services → B → OK

Note

- Channel numbers cannot be changed, due to broadcast restrictions.

Update TV's software system

System Update

Download new software to TV.
- For details (p. 37)

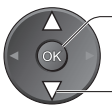
If System Update is performed, the software will be updated (it may change TV functions). If you do not wish to do so, set "Auto Update Search in Standby" to Off.

Select "Auto Update Search in Standby" and then set "On" or "Off"

- On: Automatically performs a search in standby and downloads an update, if any software updates are available

■ To update immediately

Select "System Update Search Now"



→ Searches for an update (for several min.) and displays a corresponding message if any → Download

- Download may take for about 20 min.

Note

- During downloading, the TV will display a blank screen for 40 to 50 seconds. Do not interrupt the TV during this procedure.

Adjust the standard time

Region Select

Select the region where you live to adjust the standard time.
- The time contained in the broadcast signal is UTC (Universal time, coordinated).

Adjust for Summer Time

Daylight Saving Time

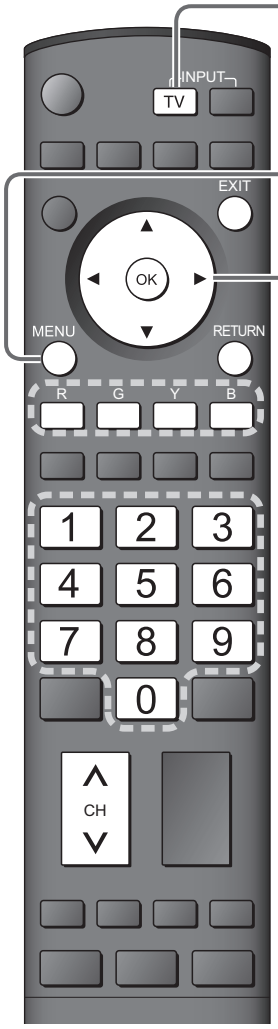
Select time offset from the standard time for Summer Time.
- Normally select "Auto".
- If there is a gap between displayed time and actual time, set this function.

Region	Standard time	Daylight Saving Time: Auto (During Summer Time)
NSW / ACT	+10:00	+11:00
Victoria		
Queensland	+10:00	
South Australia	+9:30	+10:30
Western Australia	+8:00	+9:00
Northern Territory	+9:30	
Tasmania	+10:00	+11:00

(Based on GMT)

Editing and Setting Channels

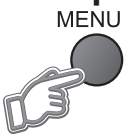
The current channel settings can be changed according to your needs and reception conditions.
You can re-tune all TV channels when moving house or search for new services which may have recently started broadcasting.



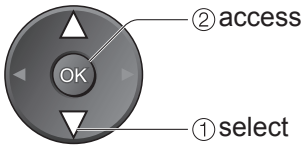
1 Select DVB or Analogue

- "DVB Manual Tuning", "Add New DVB Services", "New Service Message" and "DVB Signal Display" are available in DVB mode only.
- "Analogue Programme Edit" and "Analogue Manual Tuning" are available in Analogue mode only.

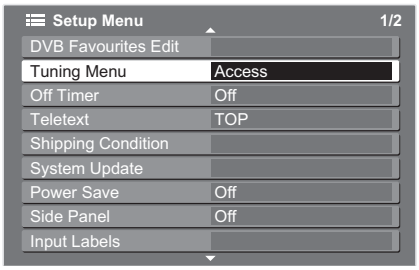
2 Display the menu

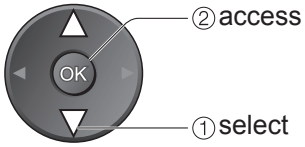


3 Select "Setup"

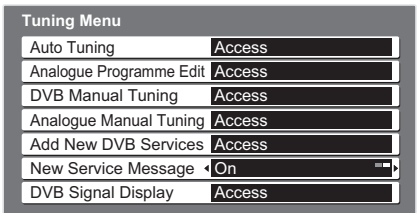


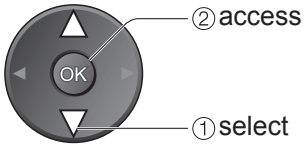
4 Select "Tuning Menu"





5 Select a function





■ **To return to TV**

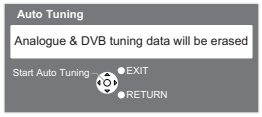
6 Set

Set channels automatically

Auto Tuning

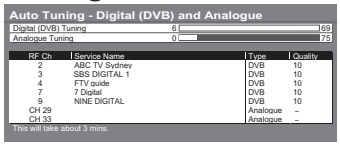
Automatically set the DVB and Analogue channels received in the area.

Access "Auto Tuning"



OK

Settings are made automatically



- All previous settings are erased.
- When the operation is completed, the digital service at programme position "1" will be displayed. If no DVB services are found, the first analogue service will be displayed.
- If tuning has not done completely ➡ "DVB Manual Tuning", "Analogue Manual Tuning"

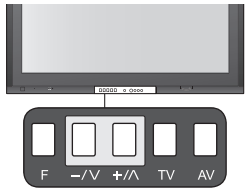
For Auto Tuning, using the buttons on the front of the TV

① Press repeatedly until "Auto Tuning" appears ➡ F

② Access "Auto Tuning" ➡ TV

③ Start "Auto Tuning" ➡ TV

■ **To return to TV** ➡ F



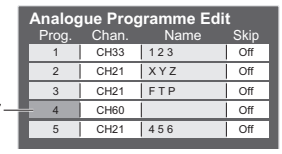
Edit Analogue channels

Analogue Programme Edit

- Delete
- Add
- Move
- Change name
- Skip

Edit the analogue programme position settings

① **Select the channel to edit**

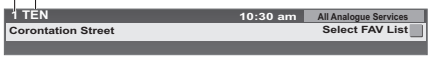


Cursor

select

● To change channel number
➡ "Analogue Manual Tuning"

Channel
Name



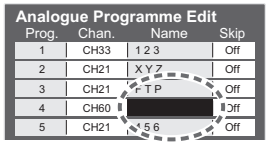
② **Edit**

■ **To delete** ➡ R ➡ After confirming, press R

■ **To add** ➡ G ➡ After confirming, press G

■ **To move** ➡ Y ➡ Select new position ➡ Y

■ **To change the name of the broadcaster displayed when selecting channels**



(Maximum: five characters)

Select the "Name" field

R Enter the "User input" mode

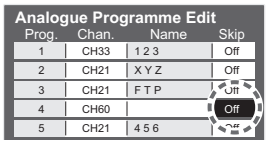
Select the character

OK Set

RETURN Store

■ **To skip the channel**

● This function is only effective when pressing the Programme Up / Down button on the TV or the remote control.



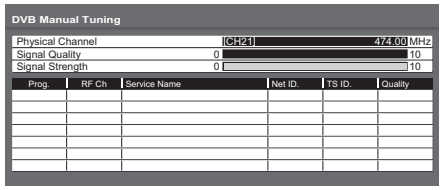
Select the "Skip" field

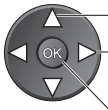
Select "On"

Set DVB channel manually

DVB Manual Tuning

Normally use "Auto Tuning" or "Add New DVB Services" for the DVB channel setting.
If tuning has not done completely, use this function.





① select channel
② adjust frequency
(set where the level of "Signal Quality" becomes the maximum)
③ search

Set Analogue channel manually

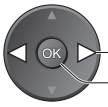
Analogue Manual Tuning

Set Analogue channel manually after Auto Tuning.
If a VCR is connected with only the RF cable, select programme position "0".

Select the programme position

Select the channel

Search and store

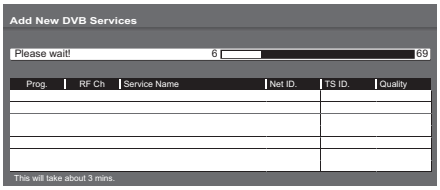


① search
② store

Add DVB channel automatically

Add New DVB Services

Any new services found will be added automatically.



● The new service is added with the current settings saved as they are.

Display a notification message

New Service Message

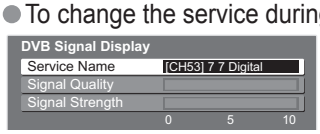
Selects whether to give a notification message when a new DVB service is found. **(Off / On)**

Check DVB signal

DVB Signal Display

Selects a service and checks the DVB signal condition.
Use for adjusting the direction of the aerial.

● To change the service during the menu appears ➡ CH



Signal Quality:
● Green bar ➡ Good
● Yellow bar ➡ Poor
● Red bar ➡ Bad (Check the aerial)

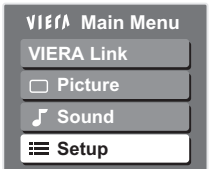
Restore Settings

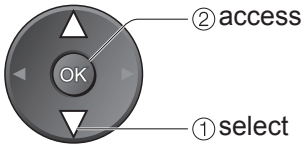
Resets the TV to its original condition, i.e. no channels tuned in.
All settings (channels, picture, sound quality, etc.) are reset.

1 Display the menu

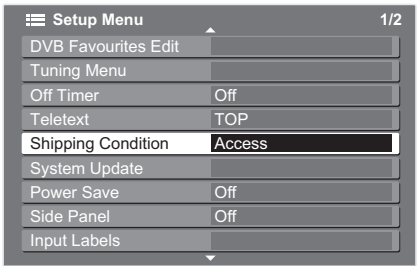
MENU

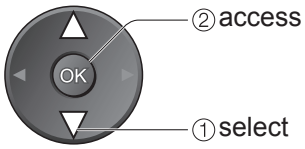
2 Select “Setup”





3 Select “Shipping Condition”





4 Set

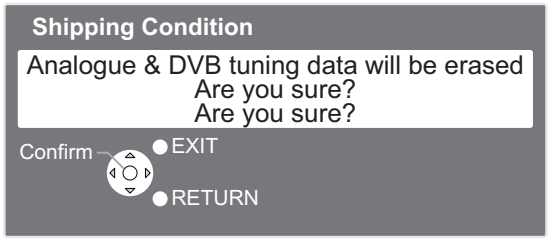
■ **To return to TV**

➡ EXIT

Restore Settings

Shipping Condition

① **Check the message and initialise**



② **Follow the on-screen instructions**

- “Auto Tuning” will automatically start. (p. 9)

■ **To re-tune TV channels only, e.g. after moving house**

➡ “Auto Tuning” (p. 24)

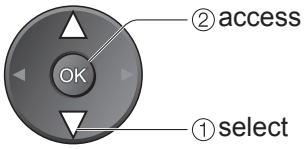
Input Labels

For easier identification and selection of the input mode, you can label each input terminals or skip terminal that is not connected to any equipment.
(To select the input mode ➡ p. 14)

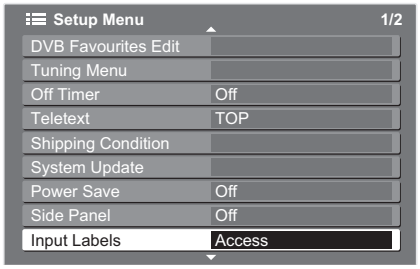
1 Display the menu

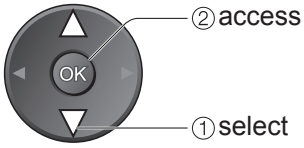
MENU

2 Select “Setup”

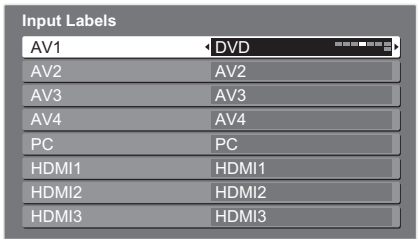


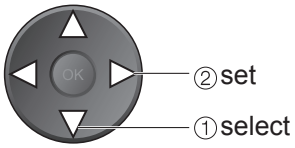
3 Select “Input Labels”





4 Select a input terminal and set





The labels you set will be displayed in “Input Selection” menu (p. 14) or banner.
● If “Skip” is selected, you cannot select the mode.

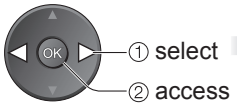
■ To return to TV

➡ EXIT

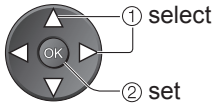
■ User input

You can name each input terminals freely.

Select “User input”



Set characters



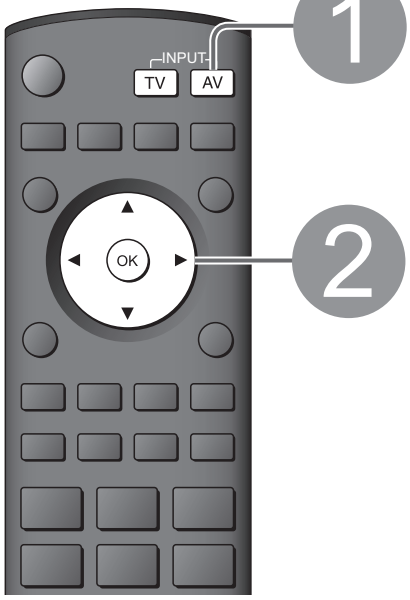
Store

RETURN

(maximum: ten characters)

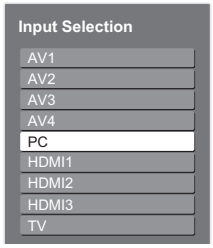
Displaying PC Screen on TV

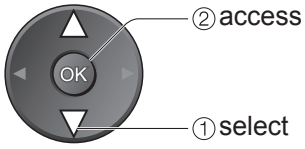
The screen of the PC connected to the TV can be displayed on the TV.
You can also listen to PC sound with the audio cable connected. To connect PC (p. 34)



Select the external input

Select "PC"





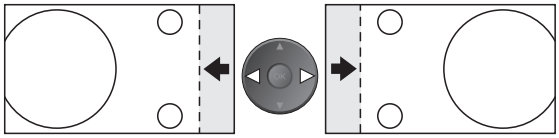
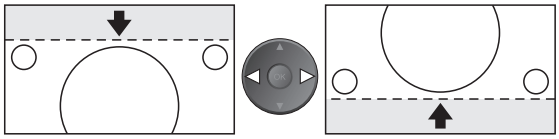
- Corresponding signals (p. 39)
- If "H-freq." or "V-freq." is shown in red, the signals may not be supported.

■ **To return to TV**

➡ TV

■ **PC menu setting** (changed as desired)

- To make settings ➡ "How to Use Menu Functions" 1 to 4 (p. 18)

Menu	Item		Adjustments / Configurations (options)
Picture	Advanced PC Settings	W/B High R	White balance of bright red area
		W/B High B	White balance of bright blue area
		W/B Low R	White balance of dark red area
		W/B Low B	White balance of dark blue area
			① ② ① and ② repeatedly adjusted
		Gamma	**(2.0 / 2.2 / 2.5 / S Curve)**
		Reset PC Settings	Press the OK button to reset to the default settings
Setup	PC Setup	Input Resolution	Switches to a wide view ● VGA (640 × 480 pixels), WVGA (852 × 480 pixels), XGA (1,024 × 768 pixels), WXGA (1,366 × 768 pixels) ● Options change depending on signals
		Clock	Set to the minimum level if noise occurs
		H-pos	Adjusts horizontal position 
		V-pos	Adjusts vertical position 
		Clock Phase	Eliminates flicker and distortion ● Adjust after Clock adjustment ● Set to the minimum level if noise occurs
		Sync	PC sync signal type **(H & V / On G)** ● H & V : Horizontal and Vertical sync from your PC (Most common sync format) On G : Sync on Green sync from your PC
		Reset PC Settings	Press the OK button to reset to the default settings

● Other items ➡ p. 20 and p. 21

HDMI Functions

HDMI (high-definition multimedia interface) allows you to enjoy high-definition digital images and high-quality sound by connecting the TV and the equipment.
HDMI-compatible equipment (∗1) with an HDMI or DVI output terminal, such as a set top box or a DVD player, can be connected to the HDMI terminal using an HDMI compliant (fully wired) cable.
About connections, see “External Equipment” (p. 34).

Note

- HDMI is the world’s first complete digital consumer AV interface complying with a non-compression standard.
- Audio settings can be made on the “HDMI1 / 3 Input” menu screen. (p. 20)
- Applicable audio signal sampling frequencies (2ch L.PCM): 48 kHz, 44.1 kHz, 32 kHz
- HDMI2 terminal is for digital audio signal only.
- Use with a PC is not assumed.
- If the connected equipment has an aspect adjustment function, set the aspect ratio to “16:9”.
- These HDMI connectors are “type A”.
- These HDMI connectors are compatible with HDCP (High-Bandwidth Digital Content Protection) copyright protection.
- An equipment having no digital output terminal may be connected to the input terminal of either “Component”, “S-VIDEO”, or “Video” to receive analogue signals.
- The HDMI input terminal can be used with only the following image signals:
  480i, 480p, 576i, 576p, 720p, 1080i and 1080p. Match the output setting of the digital equipment.
- For details of the applicable HDMI signals, see p. 39.

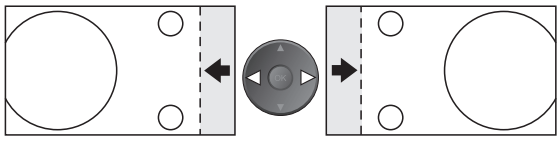
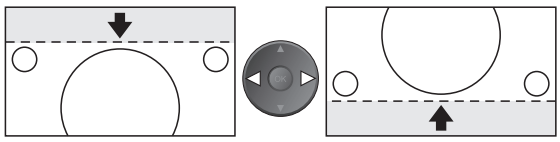
■ DVI connection

If the external equipment has only a DVI output, connect to the HDMI1 / 3 terminal via a DVI to HDMI adapter cable (∗2).
When the DVI to HDMI adapter cable is used, connect the audio cable to the audio input terminal (HDMI1: use AUDIO IN terminals / HDMI3: use AV4 audio terminals).

■ DVI Position Settings

If the picture position is not fit to the screen during the DVI connection, adjust the position on “DVI Position Settings” in Setup Menu. The settings are memorized for each HDMI terminals and input signals.

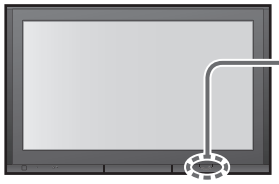
- To make settings ➡ “How to Use Menu Functions” 1 to 4 (p. 18)

Menu	Item		Adjustments
Setup	DVI Position Settings	H-pos	Adjusts horizontal position 
		V-pos	Adjusts vertical position 
		Reset DVI Position Settings	Press the OK button to reset to the default settings

(∗1): The HDMI logo is displayed on HDMI-compliant equipment.
(∗2): Enquire at your local digital equipment retailer shop.

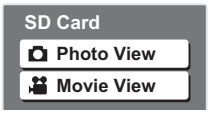
Viewing from SD Card

Photo View: The still images recorded by the digital camera can be displayed.
Movie View: The moving pictures recorded by the digital video camera can be played back.



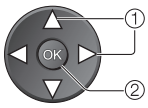
1 Insert the SD Card

2 Select “Photo View” or “Movie View”



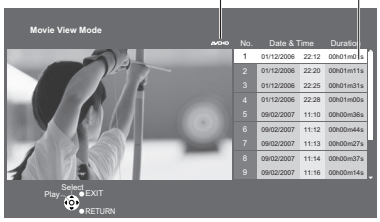
3 Select the file to be viewed

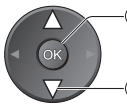
■ Photo View



● Slide show ➡ R (p. 31)

■ Movie View





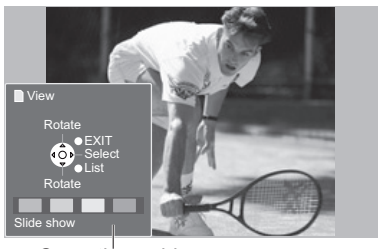
4 View

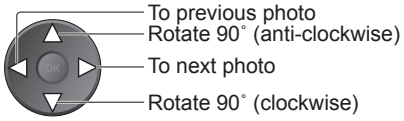
■ Photo View

Display one at a time

To display / hide the operation guide

➡ INFO or OPTION





● To return to thumbnail screen ➡ RETURN

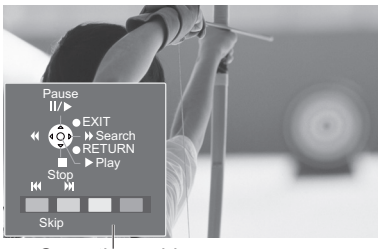
■ Movie View

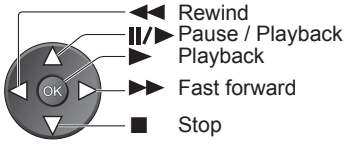
Playback will start

To display the operation guide

➡ R G Y B or OK

● To hide the operation guide ➡ RETURN





● To previous movie ➡ R

● To next movie ➡ G

● To return to list screen ➡ OK (stop)

● To display information banner ➡ INFO

● To change aspect ratio (only for the 4:3 movie content) ➡ ASPECT

■ To return to TV

EXIT or SD CARD

Caution

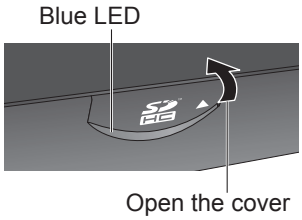
- Signal output from all AV terminals will be disabled during SD Card operations. But the sound in Movie View can be output from AUDIO out and DIGITAL AUDIO OUT terminals.
- “Date” shows the date on which the recording was made by the digital camera or digital video camera. It shows “**/**/****” when recordings are made without date signal.

(Photos and Movies)

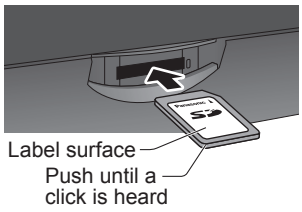
SD Card

● For details on SD Cards (p. 38)

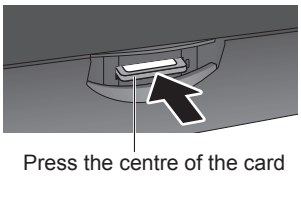
■ To open



■ To insert



■ To remove



● Blue LED lights while SD Card is inserted if set “SD Card LED” to “On” in Setup Menu (p. 21).

Slide show (Photo View)

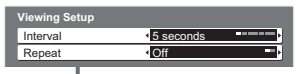
■ Start Slide show (operate in step 3 or 4)

① Select the photo for the first view → ② Start Slide show (R)

● To pause ➡ OK

■ Slide show settings (operate in step 3 or 4)

① Display the menu (MENU) → ② Select “Viewing Setup” → ③ Select the functions and set



● “Picture Menu” (p. 20)

Menu	Item	Adjustments / Configurations (alternatives)
Viewing Setup	**Interval**	Select slide show interval **(5 / 10 / 15 / 30 / 60 / 90 / 120 seconds)**
	Repeat	Slide show repeat **(Off / On)**

Audio Settings (Movie View)

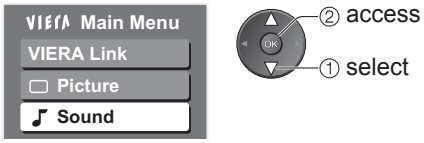
■ To confirm or change the current sound status (operate in step 4)

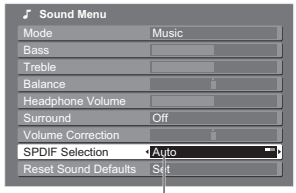
① Display the current sound status (CD/▽ I/II) → ② Press repeatedly until the desired sound is selected (if the movie has multiple audio signals)

● It may take several seconds to change the sound.

■ Audio output settings (operate in step 3 or 4)

① Display the menu (MENU) → ② Select “Sound” → ③ Select “SPDIF Selection” and set





● “VIERA Link Menu” and “Picture Menu” (p. 20)

SPDIF : A standard audio transfer file format
Selects the initial setting for digital audio output signal from DIGITAL AUDIO OUT terminal **(Auto / PCM)**
Auto: Dolby Digital is output as Dolby Digital Bitstream. MPEG is output as PCM.
PCM: Dolby Digital is output as PCM. MPEG is output as PCM.

On screen messages

Message	Meaning / Action
Is SD Card in?	● Insert a SD card.
No valid file to play	● The card has no data.
Cannot read file	● The file is broken or unreadable. ● The TV does not support the format. (For the applicable formats and data, see p. 38.)
This operation is not possible	● Your operation is not available.
Confirm SD card	● The inserted SD card has a problem.

VIERA Link "HDAVI Control™"*

*Enjoy additional HDMI Inter-Operability with Panasonic products which have "HDAVI Control" function. This TV supports "HDAVI Control 2" function.
Connections to some Panasonic equipment (DVD Recorder DIGA, HD Video Camera, Player theatre, Amplifier, etc.) with HDMI cables allow you to interface them automatically.
The equipment with "HDAVI Control" function enables the following operations:

- Easy playback (p. 33)
- Power on Link (p. 33)
- Power off Link (p. 33)
- Speaker control (p. 33)

In addition, the equipment with "HDAVI Control 2" function enables the following operation:

- Easy control only with VIERA remote control (p. 33)

These features are limited to models incorporating Panasonic's "HDAVI Control" and "VIERA Link". VIERA Link "HDAVI Control", based on the control functions provided by HDMI which is an industry standard known as HDMI CEC (Consumer Electronics Control), is a unique function that we have developed and added. As such, its operation with other manufacturers' equipment that supports HDMI CEC cannot be guaranteed.
Refer to individual manuals for compatibility information. About applicable equipment, consult your local Panasonic dealer.

■ HDMI cable

This function needs an HDMI compliant (fully wired) cable. Non-HDMI-compliant cables cannot be utilized.
It is recommended that you use Panasonic's HDMI cable. Recommended part number:

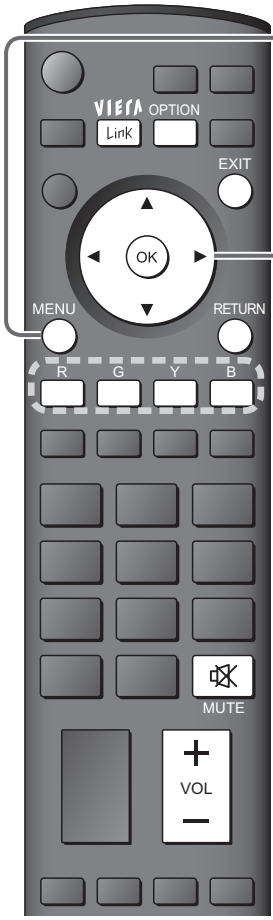
- RP-CDHG15 (1.5 m)
- RP-CDHG30 (3.0 m)
- RP-CDHG50 (5.0 m)

■ Preparations

Setup the equipment to enable this function. Read the manuals of the equipment.
About connections, see "External Equipment" (p. 35). Read the manuals of the equipment too.

■ For the first time / When adding new equipment, reconnecting equipment or changing setup

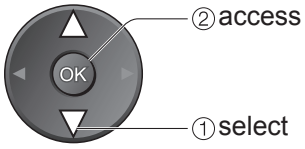
After connection turn the equipment on and then switch the TV on.
Select the input mode to HDMI1, HDMI2 or HDMI3 (p. 14), and make sure that an image is displayed correctly.



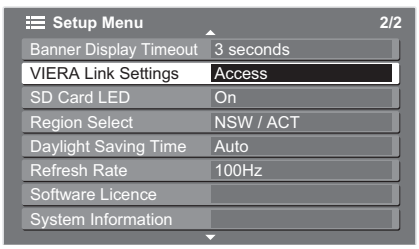
1 Display the menu

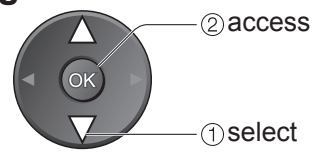
MENU

2 Select "Setup"

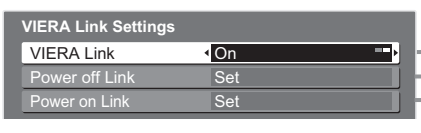


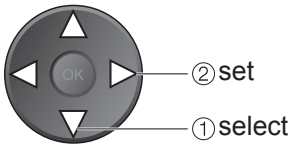
3 Select "VIERA Link Settings"





4 Select "VIERA Link" and set to "On"





Easy control only with VIERA remote control

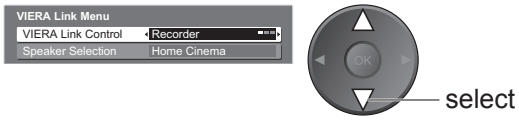
You can control some functions of the connected Panasonic equipment with this TV remote control (point the remote control at the TV's signal receiver).

- If you cannot access the menu, check the settings and the equipment (p. 32).

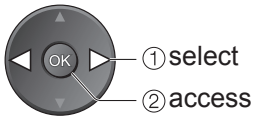
Access the menu of the equipment

① Display "VIERA Link Menu" ➡ VIERA Link

② Select "VIERA Link Control"



③ Select the equipment you want to access

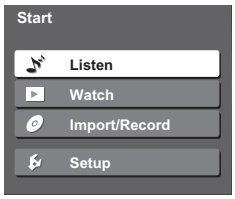


④ Operate the menu of the equipment

- Available VIERA remote control buttons: (depending on the connected equipment)

	Move the cursor / select the menu
	Move the cursor / access / adjust
OK	Store / set / access
RETURN	Return to the previous menu
EXIT	Exit the menu
OPTION	The same functions with the OPTION button of the equipment
R G Y B	Access when the key words are displayed on colour bar

- Example:

DVD Recorder DIGA	HD Video Camera	Player theatre
		

- About the operations for the equipment, read the manual of the equipment.

Easy playback

Automatic Input switching-When the connected Panasonic equipment is operated, input mode is switched automatically. When it is stopped operating, input mode is not returned.

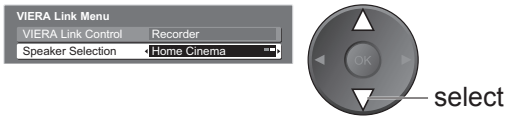
Speaker control

You can control the theatre speaker with TV's remote control.
This function is available when Panasonic Amplifier or Player theatre is connected.

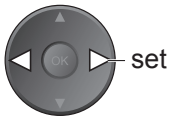
- If you cannot access the menu, check the settings and the equipment (p. 32).

① Display "VIERA Link Menu" ➡ VIERA Link

② Select "Speaker Selection"



③ Set to "Home Cinema" or "TV"



■ Home Cinema
Adjustment for equipment (automatically turned on if it is in Standby mode).

Volume up / down ➡ + VOL −

Mute ➡ MUTE

- The sound of TV speakers is mute.
- When the equipment is turned off, TV speakers will be active.

■ TV
TV speakers are active.

Power on Link

Set to "Set"
➡ When the connected Panasonic equipment starts playback or direct navigator / function menu for the equipment are activated, the TV is automatically turned on. (Only when TV is in Standby mode.)

Power off Link

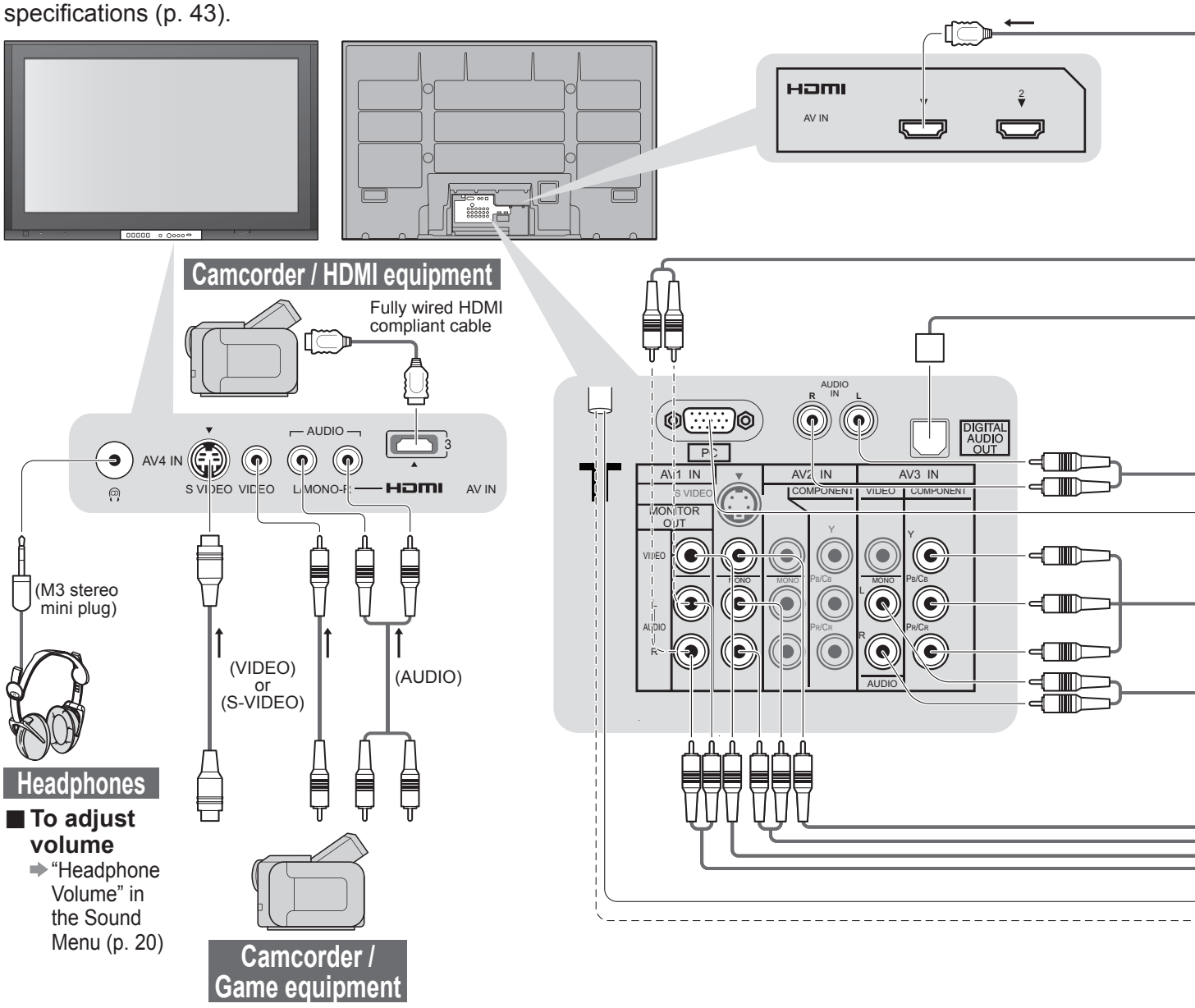
Set to "Set"
➡ When TV is set to Standby mode, the connected Panasonic equipment is also automatically set to Standby.

- This function will work even if the TV enters standby mode automatically by Off Timer function or auto power standby function.

- The TV remains on even if the "VIERA Link" compatible equipment is turned off.

External Equipment

These diagrams show our recommendations for how to connect the TV to your various equipment. For other connections, consult the instructions for each piece of equipment, the table below, and the specifications (p. 43).

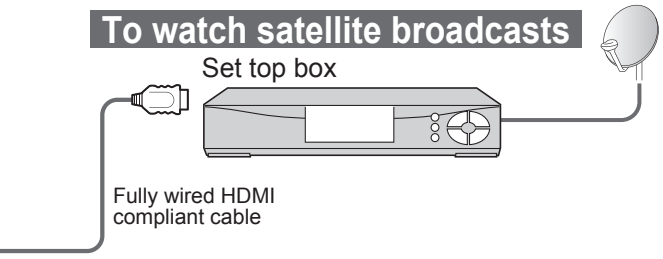


■Types of connectable equipment to each connector

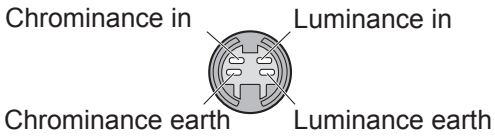
Recording / Playback (equipment) \ Connector	AV1 IN	AV2 IN	AV3 IN	AV4 IN (Front of TV)	MONITOR OUT	DIGITAL AUDIO OUT	HDMI 1	HDMI 2	HDMI 3
■To record / playback videocassettes / DVDs (VCR / DVD recorder)	○	○	○	○	○				
■To watch DVDs (DVD player)	○	○	○	○			○	○	○
■To watch camcorder images (Video camera)	○	○	○	○			○	○	○
■To watch satellite broadcasts (Set top box)	○	○	○	○			○	○	○
■To play games (Game equipment)	○	○	○	○					
■To use amplifier with speaker system					○	○			
■VIERA Link							○	○	○

○: Recommended Connection

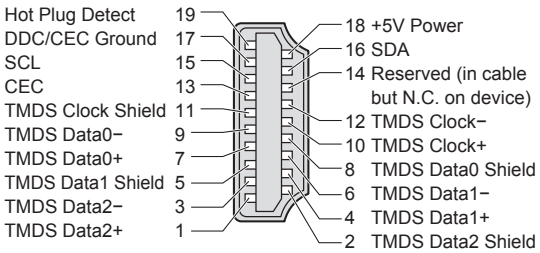
To watch satellite broadcasts



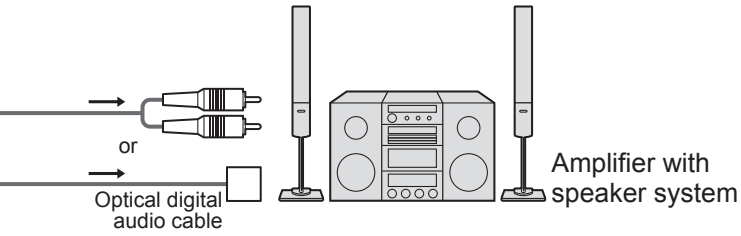
S VIDEO 4 pin terminal



HDMI terminal

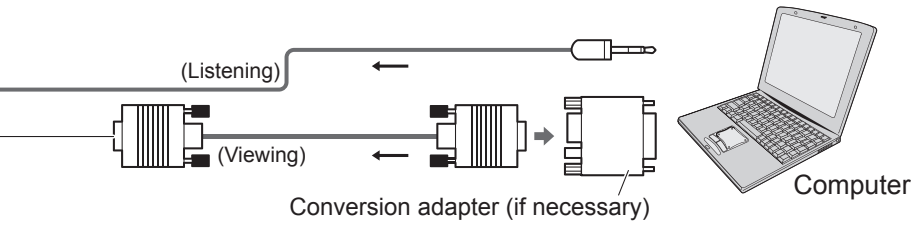


To listen with speakers



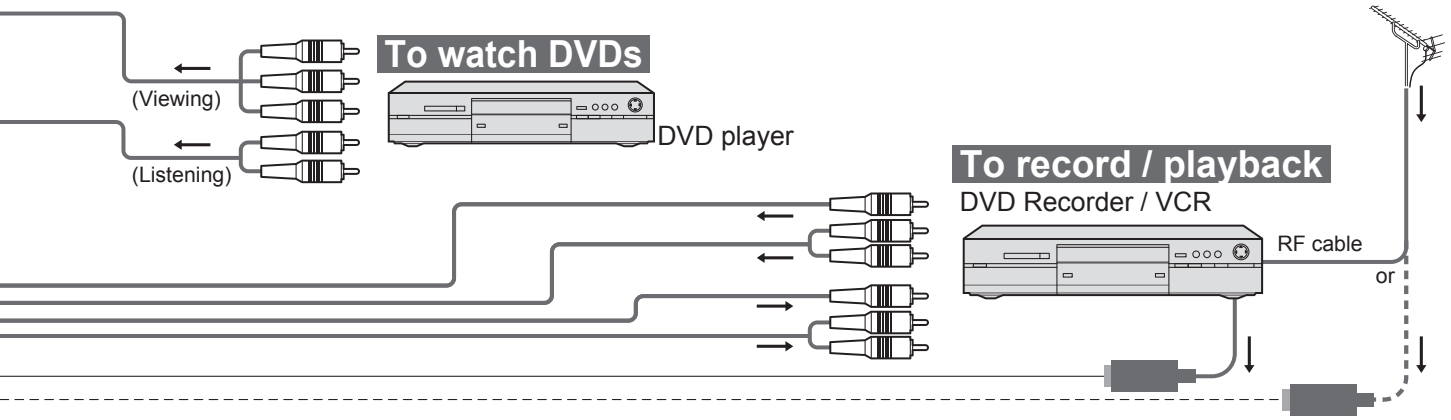
- Connect the S-VIDEO or VIDEO terminal when using AV1 / AV4 IN terminals.
- Connect the COMPONENT or VIDEO terminal when using AV2 / AV3 IN terminals.

PC



To watch DVDs

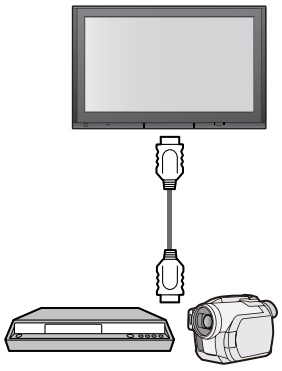
To record / playback



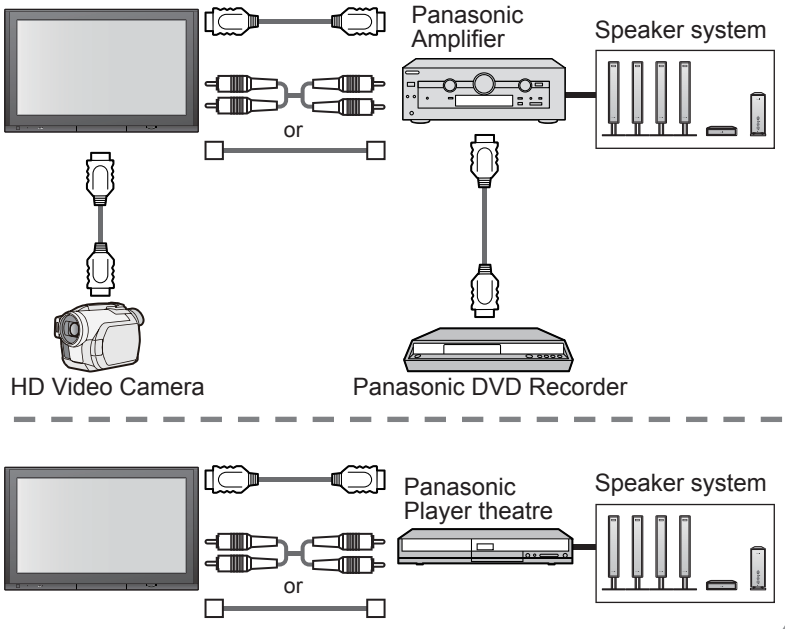
VIERA Link (p. 32)

- Use fully wired HDMI compliant cable.
- Read the manuals of the equipment too.

■ Easy playback, Easy control only with VIERA remote control



■ Home Cinema



Technical Information

Channel Allocation (Analogue mode)

CH Display / Receive Channel	CH Display / Receive Channel	CH Display / Receive Channel
CH 0 ~ CH 5	S 6 ~ S 10	CH 10 ~ CH 12
S 2 ~ S 5	CH 6 ~ CH 9	S 11 ~ S 44
CH 5A	CH9A	CH 20 ~ CH 75

Rating (DVB mode)

Rating	Meaning	Rating	Meaning
-	Not classified	M	Mature
P	Pre school	MA 15+	Mature Adult 15+
C	Children	AV 15+	Adult strong Violence 15+
G	General	R	Restricted 18+
PG	Parental Guidance recommended		

Aspect Ratio

The optimum size and aspect can be chosen, and you can enjoy finer images. (p. 11)

Signal name		Aspect modes							
		16:9	14:9	Just	4:3	4:3 Full	Zoom1	Zoom2	Zoom3
TV/AV1/AV2/AV3/AV4	PAL	O	O	O	O	–	O	O	O
	PAL 525/60	O	O	O	O	–	O	O	O
	DVB-T	O	–	–	–	–	–	–	–
	M.NTSC	O	O	O	O	–	O	O	O
	NTSC	O	O	O	O	–	O	O	O
Component/HDMI	480i (60 Hz)	O	O	O	O	–	O	O	O
	480p (60 Hz)	O	O	O	O	–	O	O	O
	576i (50 Hz)	O	O	O	O	–	O	O	O
	576p (50 Hz)	O	O	O	O	–	O	O	O
	720p (50 Hz)	O	O	O	O	O	O	O	O
	720p (60 Hz)	O	O	O	O	O	O	O	O
	1,080i (50 Hz)	O	O	O	O	O	O	O	O
	1,080i (60 Hz)	O	O	O	O	O	O	O	O
	1,080p (50 Hz)	O	O	O	O	O	O	O	O
	1,080p (60 Hz)	O	O	O	O	O	O	O	O
PC input		O	–	–	O	–	–	–	–

Note

- The ratio varies depending on the programme, etc. If the ratio is greater than the standard "16:9", black bands may appear at the top and bottom of the screen.
- If the screen size looks unusual when a widescreen-recorded programme is played back on a VCR, adjust the tracking of the VCR. (See the VCR manual.)
- To select the ratio manually: (Only “16:9” or “4:3” in PC mode)

16:9

Directly displays the image at “16:9” without distortion (anamorphic).

14:9

Displays the image at the standard “14:9” without enlargement.

Just

Displays a 4:3 image full-screen. Stretching is only noticeable at the left and right edges.

4:3

Displays the image at the standard “4:3” without distortion.

4:3 Full

Displays a “4:3” image enlarged horizontally to fit the screen.

Zoom1

Displays a “16:9” letterbox or “4:3” image without distortion.

Zoom2

Displays a “16:9” letterbox (anamorphic) image full-screen without distortion.

Zoom3

Displays a “2.35:1” letterbox (anamorphic) image full-screen without distortion. At “16:9”, displays the image at its maximum (with slight enlargement).

Updating the software system

Update system software regularly to ensure that you have latest version software.
If there is an update available, a notification banner is displayed when the channel has the update information.

- To download new software, press “OK” ➡ Downloading (approx. 20 min.)
  If you choose not to download, press “EXIT”.

■To update automatically

Set “Auto Update Search in Standby” to “On” (p. 23)
If there is a new version software being broadcast, the TV will download this automatically.

- The automatic updating sequence is carried out at 3:00 AM and 5:00 AM every night under the following conditions.
  Standby (TV turned Off with the remote control)
  Recording is not in progress.

■To update manually

Perform “System Update Search Now” (p. 23)
If there is an update available, a notification banner is displayed.

- To download new software, press “OK” ➡ Downloading (approx. 20 min.)
  If you choose not to download, press “EXIT”.

Note

- During downloading, do not turn Off the TV or touch any button.
  (The TV is automatically activated after downloading is completed.)

VIERA Link “HDAVI Control™”

HDMI connections to some Panasonic equipment allow you to interface them automatically. (p. 32)

- This function may not work normally depending on the equipment condition.
- Image or sound may not be available for the first few seconds when the playback starts.
- Image or sound may not be available for the first few seconds when Input mode is switched.
- Volume function will be displayed when adjusting the volume of the equipment.
- If you connect the equipment that has “HDAVI Control 2” function to the TV with HDMI cable, the sound from DIGITAL AUDIO OUT terminal can be output as multi channel surround.
- Easy playback is also available by using the remote control for Amplifier or Player theatre. Read the manuals of the equipment.
- If you connect the same kind of equipment at once (for example: one DIGA to HDMI1 / another DIGA to HDMI2), VIERA Link is available for the terminal with the smaller number.
- “HDAVI Control 2” is the newest standard (current as of February, 2007) for Panasonic’s HDAVI Control compatible equipment. This standard is compatible with Panasonic’s conventional HDAVI equipment.

Stereo / Bilingual Sound Selection (Analogue mode)

ꝏ/▽ When you receive the stereo / bilingual sound system, sound output modes can be selected by pressing the I/II **Stereo / Bilingual Sound Selection** button.

Audio Signal	STEREO	MAIN Ⅰ	SUB Ⅱ	MONO
Mode Indicator	ꝏ	Ⅰ	Ⅱ	▽

NICAM .....Used in New Zealand, Singapore, Hong Kong etc.

Type of broadcast	Regular broadcast (Standard Audio)	Regular + NICAM MONO Ⅰ (MAIN Ⅰ)	NICAM STEREO	NICAM DUAL MONO (MAIN Ⅰ / SUB Ⅱ)
Mode Indicator	No Indicator ⟷ ▽	Ⅰ ⟷ ▽	ꝏ ⟷ ▽	Ⅰ → Ⅱ → ▽ → Ⅰ

A2(German) .....Used in Australia, Malaysia etc.

Type of broadcast	Regular broadcast (Standard Audio)	BILINGUAL or DUAL MONO: MAIN Ⅰ / SUB Ⅱ	STEREO
Mode Indicator	No Indicator ⟷ ▽	Ⅰ ⟷ Ⅱ	ꝏ ⟷ ▽

Note

- If the stereo signal is poor or the receiving conditions are not optimum or if STEREO:MONO automatic switching occurs, it is recommended you switch from STEREO to MONO.
- Even when the contents of the receiving signal undergo changes, selection mode is kept intact.
- When the receiving conditions deteriorate, listening will be easier if the mode is set to the MONO position, using the stereo / bilingual sound selection button.
- DUAL, also known as DUAL MONO or as BILINGUAL is not currently transmitted in some countries.

Technical Information

Multi Window

You can watch two images at once. (p. 11)
- The same input mode cannot be displayed at once.
- The sound is active for main screen only in multi window.
- You cannot change the aspect ratio in multi window.
- Multi window cannot be used with PC, SD card or HDMI (available for main screen only).
- Some signals are reformatted for suitable viewing on your display.
- The display timeout for the input mode or programme position can be adjusted by “Banner Display Timeout” in Setup Menu (p. 21).

Cautions in handling SD Card

- Do not remove the card while the TV is accessing data (this can damage card or TV).
- Do not touch the pins on the back of the card.
- Do not subject the card to a high pressure or impact.
- Insert the card in the correct direction (otherwise, card may be damaged).
- Electrical interference, static electricity, or erroneous operation may damage the data or card.
- Back up the recorded data at regular intervals in case of deteriorated or damaged data or erratic operation of the TV. (Panasonic is not liable for any deterioration or damage of recorded data.)

Data format for Card browsing

Photo : Still images recorded with digital still cameras compatible with JPEG files of DCF* and EXIF standards
Data format - Baseline JPEG (Sub-sampling 4:4:4, 4:2:2 or 4:2:0)
Max. number of files - 9,999
Image resolution - 160 × 120 to 10,000,000

Movie : SD-Video Standard Ver. 1.2 [MPEG-2 (PS format)] and AVCHD Standard compatible files with an audio format that is either MPEG-1/Layer-2 format or Dolby Digital format
(A modified data with a PC may not be displayed correctly.)

- Compliant card type (maximum capacity): SDHC Card (4 GB), SD Card (2 GB), Multi Media Card (128 MB), miniSD Card (1 GB) (requiring miniSD adapter)
- If miniSD Card is used, insert / remove it together with the adapter.
- Check the latest information on the card type at the following website. (English only)
  http://panasonic.co.jp/pavc/global/cs/

*DCF (Design rule for camera file system): Unified standard established by Japan Electronics and Information Technology Industries Association (JEITA).

Note

- Format the card with the recording equipment.
- The picture may not appear correctly on this TV depending on the recording equipment used.
- Display may take some time when there are many files and folders.
- This function cannot display Motion JPEG and still image not DCF formatted (i.e. TIFF, BMP).
- A data modified with a PC may not be displayed.
- Images imported from a PC must be compatible with EXIF (Exchangeable Image File) 2.0, 2.1, and 2.2.
- Partly degraded files might be displayed at a reduced resolution.
- All “.JPG” extension datas in the card will be read in Photo View Mode.
- The folder and file names may be different depending on the digital camera used.
- Do not use two-byte characters or other special codes.
- The card may become unusable with this TV if file or folder names are changed.

PC connection

A PC may be connected to this TV so that the PC screen is displayed and sound is heard from the TV.

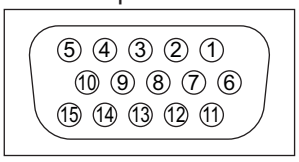
- PC signals that can be inputted: Horizontal scanning frequency 31 to 69 kHz; vertical scanning frequency 59 to 86 Hz (more than 1,024 signal lines could result in incorrect display of the image).
- A PC adapter is not necessary for the DOS/V-compliant D-sub 15-pin connector.

Note

- Some PC models cannot be connected to this TV.
- When using PC, set the colour display quality of PC to the highest position.
- For details of the applicable PC signals, see below.
- Max. display resolution

Aspect	**4:3**	1,440 × 1,080 pixels
	16:9	1,920 × 1,080 pixels

- D-sub 15-pin connector signal



Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
①	R	⑥	GND (Ground)	⑪	NC (not connected)
②	G	⑦	GND (Ground)	⑫	NC (not connected)
③	B	⑧	GND (Ground)	⑬	HD
④	NC (not connected)	⑨	NC (not connected)	⑭	VD
⑤	GND (Ground)	⑩	GND (Ground)	⑮	NC (not connected)

Input signal that can be displayed

COMPONENT (Y, P_B/C_B, P_R/C_R), **HDMI**

* Mark: Applicable input signal

Signal name	COMPONENT	HDMI
480i (60 Hz)	*	*
480p (60 Hz)	*	*
576i (50 Hz)	*	*
576p (50 Hz)	*	*
720p (50 Hz)	*	*
720p (60 Hz)	*	*
1,080i (50 Hz)	*	*
1,080i (60 Hz)	*	*
1,080p (50 Hz)		*
1,080p (60 Hz)		*

PC (D-sub 15P)

Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)
640 × 400 @70 Hz	31.47	70.07
640 × 480 @60 Hz	31.47	59.94
640 × 480 @75 Hz	37.50	75.00
800 × 600 @60 Hz	37.88	60.32
800 × 600 @75 Hz	46.88	75.00
800 × 600 @85 Hz	53.67	85.06
852 × 480 @60 Hz	31.44	59.89
1,024 × 768 @60 Hz	48.36	60.00
1,024 × 768 @70 Hz	56.48	70.07
1,024 × 768 @75 Hz	60.02	75.03
1,024 × 768 @85 Hz	68.68	85.00
1,280 × 1,024 @60 Hz	63.98	60.02
1,366 × 768 @60 Hz	48.39	60.04
Macintosh13” (640 × 480)	35.00	66.67
Macintosh16” (832 × 624)	49.73	74.55
Macintosh21” (1,152 × 870)	68.68	75.06

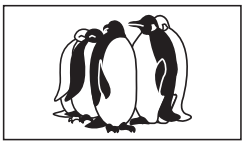
Note

- Signals other than above may not be displayed properly.
- The above signals are reformatted for optimal viewing on your display.
- Applicable input signal for PC is basically compatible to VESA standard timing.
- PC signal is magnified or compressed for display, so that it may not be possible to show fine detail with sufficient clarity.

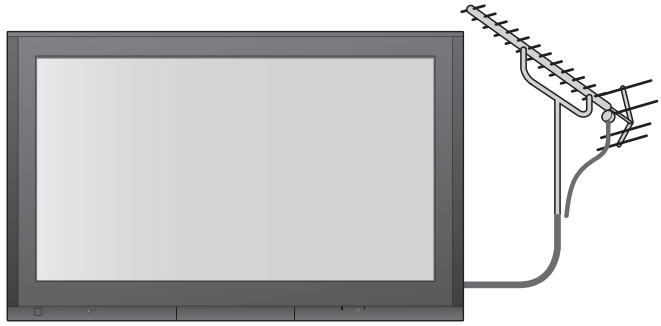
FAQs

Before requesting service or assistance, please follow these simple guides to resolve the problem.
If problem still persists, please contact your local Panasonic dealer for assistance.

White spots or shadow images (noise)



- Check the position, direction, and connection of the aerial.



Neither image nor sound is produced

- Is the TV in “AV mode”?
- Is the mains lead plugged into the socket outlet?
- Is the TV turned On?
- Check Picture Menu (p. 20) and volume.

An error message appears

- Follow the message’s instructions.
- If the problem persists, contact the authorized Service Centre.

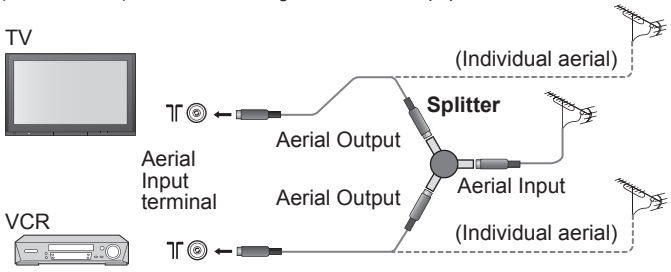
Permanently lit spots on screen

- Due to production process involved in this technology this may result in some pixels which are permanently lit or unlit. This is not a malfunction.

Contrast is reduced

- Contrast is lowered when the following conditions without any user operation for a few minutes:
  - no signal in DVB or AV mode
  - selected invalid channel
  - selected radio channel
  - displayed menu
  - Thumbnail, list or still picture in SD Card mode

	Problem	Actions
Screen	**Chaotic image, noisy**	● Set “P-NR” in the Picture Menu (to remove noise). (p. 20) ● Check nearby electrical products (car, motorcycle, fluorescent lamp).
	No image can be displayed	● Is “Colour” or “Contrast” in the Picture Menu set to the minimum? (p. 20)
	Blurry or distorted image (no sound or low volume)	● Reset channels. (p. 24)
	Unusual image is displayed	● Turn off the TV with Mains power On / Off switch, then turn it on again.
Sound	**No sound is produced**	● Is “Sound mute” active? (p. 7) ● Is the volume set to the minimum?
	Sound level is low or sound is distorted	● Sound signal reception may be deteriorated.
	Whirling sound is heard	● The sound is from built-in cooling fan (not a sign of faulty operation).
HDMI	**Sound is unusual**	● Set the sound setting of the connected equipment to “2ch L.PCM”. ● Check the “HDMI1 / 3 Input” setting in the Sound Menu. (p. 20) ● If digital sound connection has a problem, select analogue sound connection. (p. 29)
	Pictures from external equipment are unusual when the equipment is connected via HDMI	● Is the HDMI cable connected properly? (p. 34) ● Turn Off the TV and equipment, then turn them On again. ● Check an input signal from the equipment. (p. 39) ● Use an equipment compliant with EIA/CEA-861/861B.

Problem	Actions
DVB	
● Digital TV reception technology requires high quality, robust DTV signals which in some domestic aerial installations, may be relatively poor despite good analogue reception.	
Aerial connection when using DTV and VCR / DVD Recorder	● To maintain optimum signal quality from TV aerial, use a TV aerial splitter (as illustrated) when connecting two or more equipments to the same aerial. 
After DVB Auto Tuning only some or no DVB channels are found	● Check to ensure your area is covered by DVB transmissions. (www.dba.org.au/) ● Check that the aerial and antenna cable are designed for DVB. For your safety, the aerial and cable should be inspected / installed by a licenced installer that should comply with Australian Standard AS1417.1. Note: If you live within 5-10 Km of DVB transmission towers, a combined VHF / UHF aerial should be adequate. Outside this area, separate VHF and UHF aerials provide superior reception performance. ● If you live in a unit or apartment, check to ensure the Master Antenna TV (MATV) system is designed for analogue and DVB-T reception. Please consult your body corporate. (www.dba.org.au/)
Picture regularly breaks up on some channels, or "No Signal" message	● Check "Signal Display". (p. 25) If "Signal Quality" or "Signal Strength" are displayed in red or constantly changing, check aerial. If problem persists consult your local TV aerial installer. ● Check that the aerial and antenna cable are designed for DVB. For your safety, the aerial and cable should be inspected / installed by a licenced installer that should comply with Australian Standard AS1417.1. ● Interference (known as impulse noise) from household appliances such as light switches, fridges etc may cause picture break up and / or audio distortion. Use high quality quad shielded coaxial cable fly lead between TV and antenna wall socket to minimise impulse noise pickup. If problem persists consult your local TV aerial installer. ● When "No Signal" message is displayed check TV aerial connection. ● The received signal may be too weak to allow the TV to reliably lock to the desired "No Signal" channel to generate a stable picture. Repeat the tuning procedure (p. 24). If problem persists consult your local TV aerial installer.
Picture very infrequently breaks up on some or all channels	● Electrical atmospheric interference caused by local or distant lighting storms or heavy rain with wind in "leafy" locations may cause pictures to break up and audio to mute or distort momentarily. ● Impulse noise interference from an infrequently used electrical appliance, or a passing vehicle or lawn mower with a "noisy" ignition system.
Other	
TV takes so long to turn on	● Like your computer, the TV has to run a number of diagnostic and software checks before it can display any broadcast channels.
The channel cannot be changed	● Is the TV in Teletext mode? (p. 16)
The channel cannot be selected	● Is the channel locked? (p. 25)
TV goes into "Standby mode"	● Off Timer function is activated. ● The TV enters "Standby mode" about 30 min. after broadcasting ends.
The remote control does not work	● Are the batteries installed correctly? (p. 6) ● Has the TV been switched On?

Licence

Trademark Credits

- DVB is a trademark of the DVB Digital Video Broadcasting Project (1991 to 1996).
- VGA is a trademark of International Business Machines Corporation.
- Macintosh is a registered trademark of Apple Computer, USA.
- S-VGA is a registered trademark of the Video Electronics Standard Association.
  Even if no special notation has been made of company or product trademarks, these trademarks have been fully respected.
- SDHC Logo is a trademark.
- HDMI, the HDMI Logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.
- HDAVI Control™ is a trademark of Matsushita Electric Industrial Co., Ltd.
- TruSurround XT, SRS and (●) symbol are trademarks of SRS Labs, Inc.
  TruSurround XT technology is incorporated under license from SRS Labs, Inc.
- “AVCHD” and the “AVCHD” logo are trademarks of Matsushita Electric Industrial Co., Ltd. and Sony Corporation.
- Manufactured under license from Dolby Laboratories.
  Dolby and the double-D symbol are trademarks of Dolby Laboratories.

Specifications

Power Source			AC 220-240 V, 50 / 60 Hz	
Power Consumption	**Average use**		680 W	
	Standby condition		0.4 W	
Display panel	**Aspect Ratio**		16:9	
	Visible screen size		147 cm (diagonal)	
			1,284 mm (W) × 723 mm (H)	
	Number of pixels		2,073,600 (1,920 (W) × 1,080 (H)) [5,760 × 1,080 dots]	
Sound	**Speaker**		Woofer (Φ 80 mm) × 2 pcs, Tweeter (23 mm × 100 mm) × 2 pcs	
	Audio Output		31 W (15.5 W + 15.5 W), 10 % THD	
	Headphones		M3 (3.5 mm) stereo mini Jack × 1	
PC signals			VGA, SVGA, XGA SXGA ····· (compressed) Horizontal scanning frequency 31 - 69 kHz Vertical scanning frequency 59 - 86 Hz	
Receiving Systems / Band name			**PAL B/G** Reception of Off air broadcasts	
			DVB-T 7 MHz VHF / UHF (Australia) free-to-air TV broadcast reception	
			PAL 60 Hz Playback of NTSC tape from some PAL Video recorders (VCR) **M.NTSC** Playback from M. NTSC Video recorders (VCR) **NTSC** Playback from NTSC Video recorders (VCR)	
Aerial - Rear			Standard Belling & Lee connector	
Operating Conditions			**Temperature** : 0 °C - 35 °C **Humidity** : 20 % - 80 % RH (non-condensing)	
Connection Terminals	**AV1 Input**	**AUDIO L - R**	RCA PIN Type × 2	0.5 V[rms]
		VIDEO	RCA PIN Type × 1	1.0 V[p-p] (75 Ω)
		S VIDEO	Mini DIN 4-pin	Y:1.0 V[p-p] (75 Ω) C:0.286 V[p-p] (75 Ω)
	AV2 Input	**AUDIO L - R**	RCA PIN Type × 2	0.5 V[rms]
		VIDEO	RCA PIN Type × 1	1.0 V[p-p] (75 Ω)
		COMPONENT	Y P_B/C_B, P_R/C_R	1.0 V[p-p] (including synchronization) ±0.35 V[p-p]
	AV3 Input	**AUDIO L - R**	RCA PIN Type × 2	0.5 V[rms]
		VIDEO	RCA PIN Type × 1	1.0 V[p-p] (75 Ω)
		COMPONENT	Y P_B/C_B, P_R/C_R	1.0 V[p-p] (including synchronization) ±0.35 V[p-p]
	AV4 Input	**AUDIO L - R**	RCA PIN Type × 2	0.5 V[rms]
		VIDEO	RCA PIN Type × 1	1.0 V[p-p] (75 Ω)
		S VIDEO	Mini DIN 4-pin	Y:1.0 V[p-p] (75 Ω) C:0.286 V[p-p] (75 Ω)
	Monitor Output	**AUDIO L - R**	RCA PIN Type × 2	0.5 V[rms] (high impedance)
		VIDEO	RCA PIN Type × 1	1.0 V[p-p] (75 Ω)
	Others	**HDMI1 / 2 / 3 Input**	TYPE A Connectors	● This TV supports “HDAVI Control 2” function.
		PC Input	HIGH-DENSITY D-SUB 15PIN	R, G, B/0.7 V[p-p] (75 Ω) HD, VD/TTL Level 2.0 - 5.0 V[p-p] (high impedance)
		Audio Input	RCA PIN Type × 2	0.5 V[rms]
		DIGITAL AUDIO OUT	PCM / Dolby Digital, Fiber optic	
		Card slot	SD CARD slot × 1	
Dimensions (W × H × D)			1,454 mm × 918 mm × 144 mm	
Mass			64.0 kg Net	

Note

● Design and Specifications are subject to change without notice. Weight and Dimensions shown are approximate.

This product is licensed under the AVC patent portfolio license for the personal and non-commercial use of a consumer to (i) encode video in compliance with the AVC Standard (“AVC Video”) and/or (ii) decode AVC Video that was encoded by a consumer engaged in a personal and non-commercial activity and/or was obtained from a video provider licensed to provide AVC Video. No license is granted or shall be implied for any other use. Additional information may be obtained from MPEG LA, LLC. See http://www.mpegla.com.

WARRANTY - Australia only

1. The product is warranted for 12 months from the date of purchase. Subject to the conditions of this warranty Panasonic or it's Authorised Service Centre will perform necessary service on the product without charge for parts or labour if, in the opinion of Panasonic, the product is found to be faulty within the warranty period.
2. This warranty only applies to Panasonic products purchased in Australia and sold by Panasonic Australia or its Authorised Distributors or Dealers and only where the products are used and serviced within Australia or it's territories. Warranty cover only applies to service carried out by a Panasonic Authorised Service Centre and only if valid proof of purchase is presented when warranty service is requested.
3. This warranty only applies if the product has been installed and used in accordance with the manufacturer's recommendations (as noted in the operating instructions) under normal use and reasonable care (in the opinion of Panasonic). The warranty covers normal domestic use only and does not cover damage, malfunction or failure resulting from use of incorrect voltages, incorrect installation, accident, misuse, neglect, build-up of dirt or dust, abuse, maladjustment of customer controls, mains supply problems, thunderstorm activity, infestation by insects or vermin, tampering or repair by unauthorised persons (including unauthorised alterations), exposure to abnormally corrosive conditions or any foreign object or matter having entered the product.
4. This warranty does not cover the following items unless the fault or defect existed at the time of purchase:
   (a) Video or Audio Tapes
   (b) Video or Audio Heads and Stylii resulting from wear and tear in normal use
   (c) Shaver Heads or Cutters
   (d) Cabinet Parts
   (e) User replaceable Batteries
   (f) Thermal Paper, Toner/Ink Cartridges, Drums, Developer, Film (Ink/Ribbon), Film Cartridge, Printer Heads
   (g) Microwave Oven cook plates.
   (h) Kneader mounting shaft unit (bread bakery)
5. If warranty service is required you should:
   • Telephone Panasonic's Customer Care Centre on 132600 or visit our website and use the Service Centre Locator for the name/address of the nearest Authorised Service Centre.
   • Send or bring the product to a Panasonic Authorised Service Centre together with your proof of purchase receipt as a proof of purchase date. Please note that freight and insurance to and / or from your nearest Authorised Service Centre must be arranged by you.
   • Note that home or pick-up/delivery service is available for the following products in the major metropolitan areas of Australia or the normal operating areas of the nearest Authorised Service Centres:
     (a) Picture tube (CRT) based Television Receivers (screen sizes greater than 66cm); Rear Projection TV's; Plasma/LCD televisions / displays (screen size greater than 103 cm)
     (b) Convection/Combination Microwave Ovens
     (c) Whiteboard (except portable type)
6. The warranties hereby conferred do not extend to, and exclude, any costs associated with the installation, de-installation or re-installation of a product, including costs related to the mounting, de-mounting or remounting of any screen, (and any other ancillary activities), delivery, handling, freighting, transportation or insurance of the product or any part thereof or replacement of and do not extend to, and exclude, any damage or loss occurring by reason of, during, associated with, or related to such installation, de-installation, re-installation or transit.

Panasonic Authorised Service Centres are located in major metropolitan areas and most regional centres of Australia, however, coverage will vary dependant on product. For advice on exact Authorised Service Centre locations for your product, please telephone our Customer Care Centre on 132600 or visit our website and use the Service Centre Locator.

Unless otherwise specified to the consumer the benefits conferred by this express warranty are additional to all other conditions, warranties, guarantees, rights and remedies expressed or implied by the *Trade Practices Act 1974* and similar consumer protection provisions contained in legislation of the States and Territories and all other obligations and liabilities on the part of the manufacturer or supplier and nothing contained herein shall restrict or modify such rights, remedies, obligations or liabilities. *November 2005*

THIS WARRANTY CARD AND THE PURCHASE DOCKET (OR SIMILAR PROOF OF PURCHASE) SHOULD BE RETAINED BY THE CUSTOMER AT ALL TIMES

If you require assistance regarding warranty conditions or any other enquiries, please visit the Panasonic Australia website
www.panasonic.com.au or by phone on 132 600
If phoning in, please ensure you have your operating instructions available.

Panasonic Australia Pty. Limited
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Locked Bag 505, Frenchs Forest, NSW 2086
PRO-031-F01 Issue: 3.0 **www.panasonic.com.au** **23-11-2005**

Customer's Record

The model number and serial number of this product may be found on its rear panel. You should note this serial number in the space provided below and retain this book, plus your purchase receipt, as a permanent record of your purchase to aid in identification in the event of theft or loss, and for Warranty Service purposes.

Model Number Serial Number

Matsushita Electric Industrial Co., Ltd.
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Printed in Japan
MBS0707S0